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EDITED BY
GEORGE WOOD CLAPP, D.D.S.

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THE DENTAL DIGEST

GEORGE WOOD CLAPP, D.D.S., Editor

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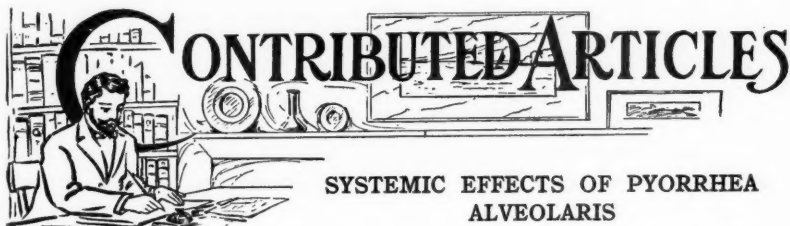
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Vol. XIX

OCTOBER, 1913

No. 10



BY ALONZO MILTON NODINE, D.D.S., NEW YORK CITY

(Concluded)

TOXIC NEURITIS.

TOXIC NEURITIS is an inflammation of the nerves produced by absorption of irritating micro-organisms, toxins and food poisons. These may be produced at and absorbed from local foci or produced in and absorbed from the gastro-intestinal tract. Among the effects most frequently produced are acute pains in different parts of the body, weakness and atrophy of the muscles, depression, hysteria and neurasthenia.

That pyorrhea alveolaris can be and frequently is the cause of this is quite apparent. The micro-organisms and toxins found in pyorrhea alveolaris pockets may be absorbed by any of the five previously mentioned channels.

The decomposition of food debris in pyorrhea alveolaris pockets produces food poisons. Continued doses of these food poisons when absorbed have the accumulated effect of producing nerve irritation on the nerve centers in the brain and spinal cord.

The passage into the stomach of pyogenic micro-organisms in the

constant doses that exude from pyorrhea alveolaris pockets distorts and thwarts the digestive processes. This results in the manufacture of food poisons, infection of the gastric and the intestinal mucosa. Auto-intoxication also results and the extended effects of auto-intoxication are, lassitude, depression and neurasthenia.

Since the absorption of food poisons and bacterial toxins are contributing causes of certain cases of insanity and epilepsy, so may the contents of pyorrhea alveolaris pockets—because of the previously stated facts—be held accountable for many of the effects of toxic neuritis (17, 22, 3, 24, 25).

It has also been frequently noticed that the removal of or treatment and care of teeth affected with pyorrhea alveolaris results in an improvement or a disappearance of the neurotic symptoms (19, 20, 21).

SEPTIC GASTRITIS.

Septic gastritis has in addition to other causes, pyorrhea alveolaris.

Septic gastritis is an inflammation of the lining membrane of the stomach. This is produced by the infection of the membrane by pyogenic micro-organisms. It may range in degree from a simple congestion up to a very intense inflammation with cellular destruction.

Among the clinical and histological facts that connect pyorrhea alveolaris with septic gastritis are:

1. The mucosa of the stomach is frequently invaded by streptococci—the micro-organisms most constantly present in pyorrhea alveolaris pockets (17).
2. The frequent observation of the coexistent conditions of septic gastritis and pyorrhea alveolaris (17).
3. The antecedent history of pyorrhea alveolaris in many cases is frequently given (17).
4. Streptococci and Staphylococci, the same micro-organisms that are found in pyorrhea alveolaris pockets are found in the vomit of those suffering from septic gastritis (18).
5. The cure of or removal of teeth affected with pyorrhea alveolaris may produce a cure of or an improvement in cases of septic gastritis (26).
6. A vaccine made from a culture of streptococci isolated from the mouth of a patient suffering from septic gastritis and pyorrhea alveolaris produced an improvement in the condition under treatment (18).

Almost all diseases are due to the lack of or break down of the body's normal resistance to disease.

Pyorrhea alveolaris, because of the constant doses of its mixed in-

fection, must be included among the factors that produce tuberculosis, pneumonia, typhoid fever, diphtheria, erysipelas, epilepsy, diabetes and other systemic and organic diseases of an infective character.

A large percentage of the patients admitted to hospitals exhibit oral sepsis. Pyorrhea alveolaris is overwhelmingly the most predominant offender.

The amount of pus swallowed in these cases varies from a few drops to an ounce a day.

Twelve teeth with an average root circumference of one inch, affected to the average depth of one-third of an inch, would equal an ulcerated surface of four square inches. Such an ulcer on the face or arm would be one of grave concern. An ulcer of this kind would discharge its septic matter outward and not be absorbed. In the mouth often the discharge from an equal ulcerating surface is absorbed or swallowed, except what escapes in droplets to become a source of infection to others (16).

The host that is all ready to attack the body when the resistance has been weakened or broken down may be shown by the following facts:

1. The healthy human mouth contains fluid that has from 10 to 100 million streptococci per cubic centimeter (29).

2. 300 chains of streptococci in 48 varieties have been found in normal saliva (29).

3. Droplets of saliva impregnated with micro-organisms are a source of positive danger to others. A very excellent British surgeon was unsuccessful with a great many of his cases—they did badly—until he had the septic conditions in his mouth eradicated.

It is evident that the human body is like unto a citadel besieged by dangerous foes without and defended within. So long as the foes gain no foothold they can do little harm. But once a foothold is gained within, their attacks are unceasing and take a hundred forms.

The oncoming of pyorrhea marks a foothold gained by the enemy. The body cannot repel the invaders without, or help destroy the invaders that are left in possession of a little space. Their unceasing attacks will finally wear down the defenders and the whole body may be disabled, disfigured or killed.

The dentist must not only acquaint himself with the systemic results of pyorrhea alveolaris but he must also understand the causes. When a dentist understands the causes of pyorrhea he may then better guard the dental organs against the breakdown of the local resistance, and perhaps prevent by proper treatment the destruction which no treatment in many cases can relieve or cure. The dentist ought also to inform his patients of the dangers of neglecting to have corrected dis-

organization and irritation of teeth and gums. The dentist ought also to inform his patients of the systemic effects and the disorganizations that are produced by pyorrhea.

One West Thirty-fourth Street.

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NOTICE

HELP FIND THIS DENTIST

DR. LESLIE E. PITCHER, of Neillsville, Wis., has disappeared and has not been heard from since March 12th, when he was at Niles, Mich.

In case he is found, please communicate with his mother, Mrs. A. C. Pitcher, Neillsville, Wis., or notify

N. L. JOHNSON, D.D.S.,
Renville, Minn.

THE ARTIFICIAL RESTORATION OF LOST OR MISSING TISSUES IN CONGENITAL CLEFT PALATE*

By VETHAKE E. MITCHELL, D.D.S., NEW YORK, N. Y.

My object in presenting this subject to you is to show by actual demonstration the possibilities in the improvement of voice and speech, in this class of oral defects, by means of an artificial substitute for the missing tissues, and the advantage of such a procedure over surgical operations.

Congenital cleft palate is the result of arrested development of the parts involved and the failure of these parts to unite during their development period in foetal life. The fissure may be of any degree, from a slight notch of lip or uvula to a complete cleft of lip, alveolar process, palatal bones and vellum palati.

The origin of cleft palate must be looked for among the pre-natal influences—generally conceded to be faults in the development process. The formation of the maxillary process begins at a very early period in foetal life, namely, about the twenty-eighth day. At the end of the tenth week the palatal processes have united. The process of uniting begins at the anterior aspect and progresses backward, the uvula being the last to unite. Consequently, the size and extent of the fissure depends largely upon the time of interference in the process of development.

Science has been unable as yet to solve the problem as to the causes. Many theories have been advanced, such as *faulty nutrition, heredity, and maternal impressions.*

FAULTY NUTRITION.

Some have thought this defect to be caused by faulty diet; from the exclusion of meat as an article of food, or the introduction of an insufficient quantity of calcium phosphates into the system of the mother during gestation. This theory has very little weight, as it is a fairly well established fact that union or coalescence of the tissue does not depend upon ossification, for union takes place in advance of ossification. It is also a well-established physical law that if there is not sufficient calcium salts ingested by the mother to meet the added demands for the building of the bony frame-work of the foetus and her own waste and repair, the material already stored up in her system is drawn upon to meet the demands of the foetus.

* Read before the Oral Surgery Section of the First District Dental Society at the Academy of Medicine, March 25, 1913. (All rights reserved by the author.)

AS TO HEREDITY.

The question of hereditary influences would seem to play an important part in the production of this defect, but as yet all the facts that have been deduced do not seem to prove a theory. Family histories in some cases seem to show hereditary influences, but most do not. Dr. Charles B. Davenport, of the Carnegie Institution, Department of Experimental Evolution, who has made extensive investigation along this line, writes me: "While we have been able to accumulate a large number of pedigrees, we have not been able to get the exact key to the method of inheritance of cleft palate. We know merely in general that it is inherited or that heredity plays an important part in its production."

IN REFERENCE TO MATERNAL IMPRESSIONS.

Most women who are so unfortunate as to give birth to a deformed child feel sure that it is a result of maternal impressions, such as fright, seeing a like deformity, etc. How much of truth there is in this we do not know. Dr. John S. Marshall, in his work on oral surgery, says: "When we know more about the influence of the nervous system on cell life, and the effects of the physical and mental condition of the parents at the time of conception and of the mother during gestation, we shall be able to consider the question from a scientific standpoint. Until then it would be mere speculation."

Another theory has been presented—that pressure exerted upon the mandible by the unnatural position of the fœtus; (the mandible lying against the sternum) forcing it up between the two halves of the maxillary bone, keep these from uniting. This hardly seems reasonable, as union of these tissues takes place at such an early age. We are still in the dark, but science will in time, no doubt, shed more light on the subject.

Whatever the cause, the fact remains that these conditions exist, and are presented to us for treatment. What is to be done for these patients?

There are two reasons for attempting to correct this defect, either surgically or mechanically:—First, the improvement of the general health; and second, the improvement of the voice and speech. Nature intended that we should have separate channels for the air we breathe and the food we eat. We know that this is so because of the difference in the anatomical formation of these cavities. Provisions are made in the nasal passages for the warming, moistening and filtering of the air before it passes into the lungs. The oral cavity does not supply these requirements. On the other hand, the highly sensitive mucous linings

of the nasal passages are most unsuitable for the passage of the different foods. In cleft palate cases some food necessarily passes through a part of the nasal passages, and by constant irritation produces a catarrhal condition of these tissues, and secretes a viscid mucus which contaminates the air breathed and the food eaten by these patients. But this is not all: These unfortunates are conscious that their defect is announced whenever they attempt to speak. This has a deplorable effect upon their physical and mental development.

Secondly: The palate is one of the most important organs of speech. Its functions are concerned in the forming of the tone of the voice by regulating the shape and size of the resonance chambers, and to close off the nasal passages in the emission of certain sounds. This being impossible to a greater or lesser extent in cleft palate cases, speech is very defective and gives it that peculiar quality which all can recognize.

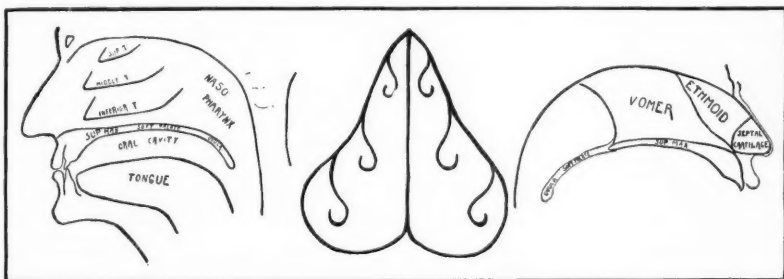


Fig. 1

Fig. 2

Fig. 3

Sectional view of head and palate

To understand more fully the tissues involved and their functions, let us refer to these drawings:

Figure I: Shows the nasal cavities with the turbinated bones, superior, middle and inferior, on either side, each forming a resonance space, and when separated by the septum, with the hard palate beneath, forming six distinct resonance spaces.

Figure II: Shows these spaces better.

Figure I: Shows also the large naso-pharynx, another resonance cavity, regulated as to size and shape principally by the soft palate and uvula. Here can be seen also the oral cavity, still another resonator, with the tongue, soft palate, lips and teeth all concerned in the production of voice and speech.

* "The Cartilage of the Septum is a smooth, triangular plate inserted

* From McClellan's Regional Anatomy we take the description of the Nasal Septum (Figure III).

posteriorly into a groove in the perpendicular plate of the ethmoid bone: Anteriorly, where it is thicker, it is connected with the nasal bones and adjacent lateral cartilage, and below with the vomer and palatal processes of the superior maxillary bones. The septal cartilage separates the anterior portion of the nasal cavities. The inner wall is the smooth septum formed principally by the perpendicular plate of the ethmoid bone, the vomer bone and the septal cartilage."

Without any question, surgical closure of the cleft would be the ideal method of treatment, if it were possible to restore the function of the tissues. Many methods by different surgeons have been proposed and attempted with various degrees of success, as far as the improvement of speech is concerned, and all agree that the best results are obtained when operated upon in early infancy. As a matter of fact, these children, owing to their inability to receive nourishment, are

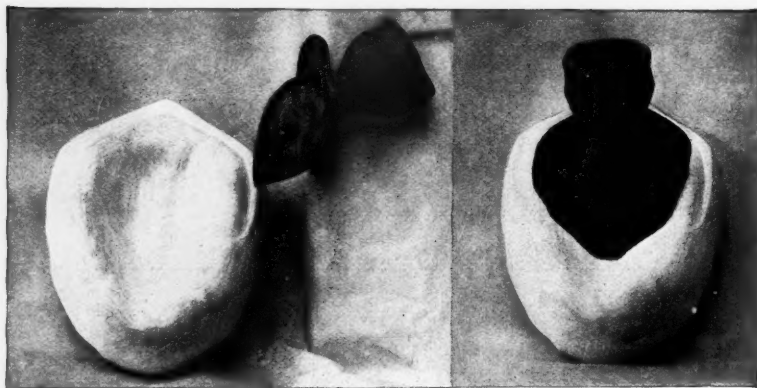


Fig. 4a

Fig. 4b

Two models for cleft palate appliance

usually in no condition to undergo the operation, and I am beginning to doubt the advisability of such a procedure. It occurs to me that the *first* and *all-important* assistance to be rendered the cleft-palate child should be an *aid in the way of receiving nourishment*. For upon *that* its whole future depends. In order to overcome the difficulty, twelve years ago I conceived the idea of constructing a temporary soft-rubber appliance covering the roof of the mouth, to which I fastened a rubber nipple. When this was placed in the mouth the cleft was closed, allowing normal suction, improving greatly the feeding of the child.

Dr. Truman Brophy, of Chicago, states:

"The deformity is not the result of defective formation of the palatine plates, nor congenital deficiencies of the parts in question, nor arrested growth of the palate, nor absence of a portion of the palatine tissue. All children who have congenital cleft palate, with rare exception, have in the palate the normal amount of tissue, although it is not united in the median line; it is *cleft*."

This leads me to infer that generally there is no lack of tissues in these cases, but merely a separation of the bones, which, when brought together by compression, would close the cleft without any stretching of the tissues. Normal growth of the arches would then take place.

Dr. Brown, of Milwaukee, does not seem to agree with this theory, for in his writings he states:

"For patients upon whom closure or attempted closure of the palate fissure has been performed, according to well-known methods, by forcibly crowding together and wiring the maxillaries, something must be done. This class is apparently increasing, because of the fact that children so treated in infancy are now reaching an age when the disastrous results are noticeable. Correction of these conditions must be made before these individuals can ever hope to enjoy the benefits of the good speech, appearance, and health which are their birthright."

Now from my own experience, in all the cases that I have treated not one shows more than normal width of arch.

Dr. W. J. Roe, of Philadelphia, says: "The closure of the cleft, even if surgically successful, unless it restores the functions of the tissue, invariably leaves the patient worse off than before, and also frequently prevents satisfactory subsequent treatment."

These conditions led me to make a special study of mechanical means by which these patients could be helped, especially those of the adolescent or adult age.

To Dr. Norman W. Kingsley belongs great credit for his efforts and progress along this line.

Appliances of many shapes and of different materials have been devised for the closure of the cleft, but with apparently little regard for the restoration of the nasal passages, to permit normal respiration, or the restoration of the resonance chambers for the improvement of voice and speech.

In the appliance which I present to you, all these things have been taken into consideration, and an attempt has been made to restore all missing tissues and their functions.

The appliance here illustrated and described was constructed June, 1912. (See page 560.)

The *History of Case* is as follows:

Miss K——, age thirty-one, second of four children. No deformity in any other member of the immediate family. Mother healthy, slightly tongue-tied. Father healthy. Her physical condition is good, but slight of build and undersized.

DESCRIPTION OF CLEFT.

A division extends through the uvula, the soft and hard palate to the alveolar process. Width of cleft, at posterior border of hard palate, thirteen-sixteenths of an inch. Vomer bone entirely missing.

Nothing had been attempted surgically. Dr. Joseph D. Bryant advised against operation at four years of age. Miss K—— feels that she is greatly indebted to Dr. Bryant for this advice. At nineteen an obturator was made and considerable improvement in speech resulted. This was worn for seven years, when a second obturator was constructed on same style. This was worn for almost five years. The case was then referred to me to see what further improvement could be accomplished.

A plaster impression of the mouth was taken in two sections, first by filling the posterior nasal cavity and cleft with plaster, to which had been added a little asbestos fiber, and allowing it to harden. This was easily removed by slight pressure directed backward, downward and forward. That portion representing the roof of the mouth was prepared so as not to adhere to the second part of the impression, but with guides, so that the two parts could easily be fitted together. It was then returned to its position in the mouth, and the second part of the impression taken in plaster, as an impression is taken in orthodontia. After hardening, all parts were removed, placed together in their proper relation and a model made.

A second impression and model are necessary for the swaging of the metal plate.

Gold was used in this case, but silver or platinum could be used when advisable. It could also be constructed entirely of hard rubber, but for strength and thinness a metal plate is desirable.

The cleft in the model is filled in, dies are made, and the plate swaged to cover the hard palate only. Clasps to go about the teeth are attached to the plate on either side, giving a firm attachment for the plate. To the nasal surface of the plate covering the cleft, four metal loops are soldered, for the attachment of the hard-rubber production of the lost bony tissue.

With baseplate wax an artificial vomer was formed in the model. Its upper margin was closely adapted to the remnants of the septum.

Its lower margin was adapted to the upper or nasal surface of the metal plate. This lower margin was spread out and thickened to replace the lost tissues of the hard palate. This was tried in the mouth to be sure of its close adaptation to the tissues.



Fig. 5. Model of the mouth

After imbedding in the wax at the posterior border that portion of the hinge intended for this part of the appliance, it was flaked and reproduced in hard rubber.

The next step is to close the cleft in the soft palate with something that will stay in position and keep the cleft closed during the muscular

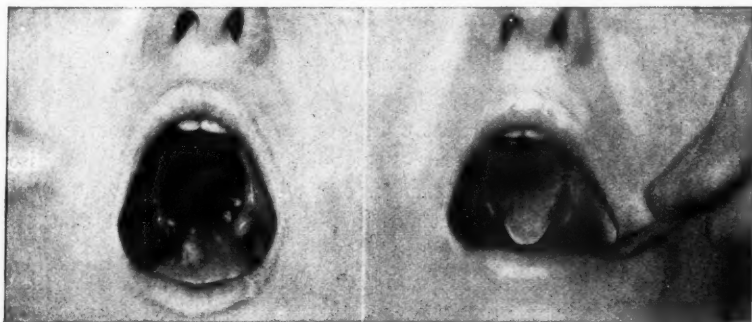


Fig. 6. Mouth showing cleft.

Fig. 7. Mouth with appliance in position

movements of the palatal tissue. A piece of baseplate wax was doubled and shaped to fit the cleft snugly from side to side. This forms the roof of the mouth and the floor of the nasal passages. It widens out as it extends backward, forming a flange on either side. This flange laps over the upper edges of the palatal tissue.

The other part of the hinge is imbedded in the anterior portion of the piece which is to close the cleft in the soft palate. The piece for the soft palate is then attached to the plate by putting the pin through both parts of the hinge. The whole appliance in this stage is then placed in position in the mouth. By careful trimming or adding the wax of the soft-palate piece is given proper shape.

It must extend back sufficiently and be so shaped that when raised by the muscles in the act of swallowing, it will touch the posterior wall of the pharynx so as to close the passage into the nasal cavity. This part is then reproduced in hard rubber, faced with pink, to more resemble the palatal tissues.

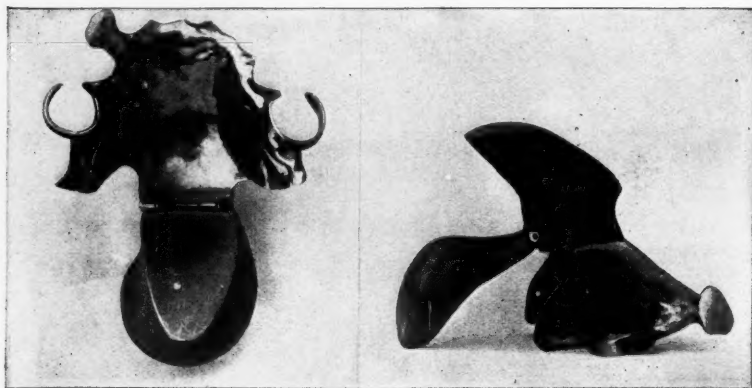


Fig. 8

Fig. 9

Showing two views of appliance—upper and side

Being solid, it has sufficient weight to keep it in position when the palate muscles are relaxed, and still is not too heavy for them to raise when contracting. This movement is possible owing to the hinge joint. The whole appliance, being constructed of metal and hard rubber, is perfectly hygienic and non-irritating to the tissues.

Figures VIII and IX are two views of the appliance. While this appliance will help to restore normal function, education is necessary to improve speech, owing to the fact that the patient being unable to make sounds in the normal way through the lack of these parts, it has been necessary for her to bring to her aid other tissues or parts in the attempt to produce the various sounds. Thus habits have been formed which it is necessary and hard to overcome; but with this appliance and the co-operation and persistence of the patient these difficulties can be overcome.

DEMONSTRATION.

Miss K——'s appliance, as you see, is constructed as I have described. (*Shows appliance.*)

Without the aid of her appliance I shall ask her to pronounce some of the most difficult letters of the alphabet.

First, the labials—B P F V.

The anterior linguals palatals—C D S T.

The posterior linguals palatals—G K Q and X Y Z.

Now an awkward combination, such as "sixty-six."

And a still harder combination, the name of Dr. Norman W. Kingsley. *With her appliance in the mouth* she will repeat this combination, which I think will demonstrate to you a very marked change in the quality of her voice, her articulation and enunciation. (*Miss K—— repeats the above.*)

To show that when the palate is raised by the muscles, the nasal passages are closed, and the breath may be forcibly expelled through the mouth, I shall ask Miss K—— to blow out this candle. This may seem a very simple matter, but I assure you that she was not able to do this before the introduction of this appliance, and now you see she is a pretty good *blower*!

BLOCK TURBINATES WITH WAX.

Most appliances that are constructed at the present time are bulbous, or of the plug type, which necessarily interfere with the nasal resonance, the appliance more or less filling up these resonance cavities. To show how absolutely important it is to have the nasal passage restored to as nearly as possible a normal condition, I shall add a piece of wax to either side of the vomer bone (of the appliance), completely closing off the nasal passages, showing the interference of nasal resonance.

To demonstrate this Miss K—— will say: *Nae, Nah, Noh* and *Ing, N, M* with and without the obstruction.

SINGING DEMONSTRATION.

Now to see what is possible with the singing voice, we will be assisted by Miss K——'s vocal teacher.

Through the development of her breath control, and by a unique *card buzzing exercise* used in Vocal Art Science, to develop certain phases of the voice, she is now able to blow a steady flow of breath through the lips, and she will open her singing demonstration by a little exercise in card buzzing, to show breath control.

Next, the scale of thirteen vowels and thirteen consonants will be

used. These scales have been arranged so discriminately in their sequence in "Vocal Art Science" that by their correct use each and every resonator from the tip of the nose to the epiglottis is exercised, and finally all are correlated.

With the use of the scale of consonants and vowels all muscles for articulation and enunciation, namely, the lips, tongue and palate, are exercised and developed, and perfect *pronunciation* is the result.

Miss K—— will demonstrate the above combination: first, to show her breath control and tone quality, she will sustain the thirteen vowels at three or four different pitches.

Then, to show *her* use of the scale of thirteen consonants and vowels, she will sing them on chromatic scales, and reverse the order on descending. (*Miss K—— sings scales of thirteen vowels and consonants.*)

To demonstrate the practical use of the mechanical appliance in showing the foremost and highest nasal resonance, she will sustain the combination of Ing, N, M, and will prolong the sound of *M* to show its position in the singing quality. (*Miss K—— sings Ing, N, M.*)

To demonstrate the perfect mechanical action of the appliance she will sing an arpeggio that moves from a lower to a higher pitch in the ascension. This necessitates a rise and fall of the normal palate and is perfectly apparent with the artificial palate. (*Sings Arpeggios.*)

Miss K—— will finish her demonstration by singing two ballads. This is to show the combination of articulation, enunciation, pronunciation, and also the legato in singing. The latter necessitates perfect breath resistance against the upper incisors, which again is made possible by the mechanical appliance.

Let me state in conclusion that Miss K——, in the training of her singing voice, and perfecting of her articulation and enunciation, has had only twenty lessons thus far. (*Miss K—— sings two songs.*)

DISCUSSION.

E. A. Bogue, M.D., D.D.S.—In discussing Dr. Mitchell's paper, Dr. Bogue said that it was well known to some of the profession that he came to New York originally to take charge of the practice of Dr. Norman W. Kingsley. This, Dr. Bogue said, had caused him to become acquainted with quite a number of gentlemen who had busied themselves in the manufacture of artificial vela: Suersen of Berlin, Williams of London, Hitchcock and Baker of Boston, Preterre of Paris, etc., but that he had never seen so strikingly good a result coming from any of them.

Dr. Davenport, of the Carnegie Institution, says that in general cleft

palate is inherited, or that heredity plays an important part in its production.

Surgical closure of the cleft would indeed be the ideal method of treatment if function could be restored, but unless taken very early in life it seldom is restored.

Dr. Brophy claims that there is generally no lack of tissue in those cases, and that when the two halves of the upper maxillary are brought together the upper teeth develop and occlude fairly well with the lower.

Dr. Brown, on the other hand, finds frequent use for a screw to spread the upper maxillary after early operation for cleft palate involving fracture of the upper maxillary bones. Whether closing the cleft at a very early age would be judicious practice if one felt fairly certain that the upper teeth and alveoli would later on have to be spread again in order to occlude with the lower teeth, needs more study than I have been able to give it to decide.

The present apparatus (*Dr. Mitchell's appliance*) differs from those which I have thus far seen in two essential particulars. An effort has been made in this instance to restore the vomer, and this is, so far as I know, a new feature. It seems to have been so successful that resonance of the voice has been attained to a degree far in advance of any appliance that I know of. Usually there is a thickness of utterance, which is quite perceptible, but in this case there is an admirable getting back to natural conditions, so that the performance of function seems possible. When the possibility of the performance of function is reached, the efforts of the patient alone can procure that performance. When mere plugs, however, are made as obturators, the effect on the voice is a muffling of the tones. The reproduction of the resonant vomer, even though it be done artificially, helps to give a resonant quality to the voice.

This apparatus is entirely made of hard rubber and gold, so that its durability is far greater than any of the appliances made of soft rubber, or vellum rubber so called.

I wish most heartily to congratulate Dr. Mitchell on the success of his work, and to thank his young lady patient for her kindness in allowing us to both see and hear the admirable results that have been attained. I think the young lady teacher also is deserving of great credit for her share in the splendid results.

Frank E. Miller, M.D., M.A.—During thirty years of active practice, I have seen and analyzed about thirty cases of cleft palate, which revealed, on inquiry, that in the mother's pregnancy, especially the first three months of this period, there was an aversion to foods, as a result of gastric and intestinal indigestion, usually of long standing; there

was also a history of catarrhal conditions. There was the usual reflex and reciprocal nasal catarrh, affecting the turbinates, middle and inferior, with mucous discharges running over membranes dominated by stomach and digestive processes. Every one of these cases had nervous shocks. In conjunction with these observations it is well to note:

Perforation and development of anus at sixth to seventh week in embryo.

Perforation of blastodermic layer into the mouth, sixth to seventh week.

Perforation of iris in eyelids, sixth to seventh week.

At birth, the fact that automatic action is the principal one is shown by the following facts:

Respiration is imperfect; skin takes its place; heat is not actively generated; few manifestations of intelligence or perception; special senses unexcitable; consciousness limited; voluntary motion and sensation almost absent; irregular movements showing activity are mainly automatic.

Result of reflex nerve explosion, such as: motions of hands, feet, sucking, cries, contortion of face, do not indicate active volition, and there is little connection of the system with the outside world.

Its principal activities with its own nervous system, nutrition, and respiration, all of which are automatic.

Again, in voice culture, it is a most significant fact that voice appears and disappears with the teeth—the members of our body that dentists control. The beginning of voice is generally announced by the shrieking “ki yhi” with nerve explosion, or the contentment of mellifluous “goo-goo.” After the gentle lacteal spell comes the progressive appreciation of resonant “mama” or articulatory “papa,” and whether it be resonant or articulatory, guttural or palatal, the subtle palate is automatically co-ordinating these nervous outbreaks into expressive speech.

The keystone of our phonetic arch is the palate.

The subtle palate divides taste from smell and separates articulation from resonance, and with equal subtilty differentiates and at the same time transmits the fundamental voice into overtone or falsetto; makes it possible to transform fundamental tone of the chords into vowel voice, specifically as well as arbitrarily, for a vowel could not be made to exist unless its own fundamental was superimposed and made synchronous with fundamental chordal voice, neither could a falsetto voice be established without the soft palate, which regulates the arch or hard palate, also dome or post-nasal cavity for the reception and dominance of its own tone. The arch or hard palate is fringed with teeth; with-

out these teeth clear, incisive and definite speech could not be had. The teeth of the lower jaw precede those of the upper about a month, therefore they should regulate (by priority of eruption) the upper. By priority of development of the same organs, of which you as dentists are the sacred guardians and final masters, the first and greatest element to enter into adjustment of vocal resonators is established; namely, articulation and first reinforcing resonators of the voice, the dental or palatal arch. Subtle as has been our former palatal action, still more subtle from this side of argument, when we consider that the first twelve teeth of the lower jaw and their white, staunch, and dependable mates in the upper or dental arch are the same in number as the resonators of the human voice.

Quite as marvelous is the fact that the soft palate controls also the second overtone of the voice, namely, the specific power of controlling dome or post-nasal space of the pharynx. That is, a power of so adjusting it as a valve to a wet resonator, that the second octave of our tone is accurately caught and controlled, for when the soft palate is shut off, the Koenig flame shows no wave forms for that region, but when opened, the wave forms are present.

The remarkable thing about Dr. Mitchell's wonderful mechanical appliance is, that he has fitted it so accurately that Miss K—— can close off the space as no person that I have seen operated on, or obturators made for, could do. She can cut off the air perfectly (the mechanism is so true), and up to the present moment, he has the première results to place *him* at the head of this line of dental and phonetic work.

H. J. Kauffer, D.D.S.—I have listened with interest to Dr. Mitchell's paper; above all I am impressed with the practical demonstration of his work. Dr. Mitchell is to be congratulated upon the results which he has obtained. I have never before observed as perfect restoration of speech by prosthesis in the mouths of any of these unfortunates.

I do not agree with the essayist that prosthesis has any advantage over plastic surgery except in inoperable cases. I claim that the majority of failures in staphylorrhaphy are due to the fact that an impossible operation is attempted.

I speak with knowledge when I assert that staphylorrhaphy, when properly performed, restores all functional activity to the parts. Where the patient is seen early enough, and the cleft palate is not of an inoperable type, almost perfect speech follows.

It is a great comfort to know that through the dexterity of Dr. Mitchell such good results can be obtained with prosthesis. In the future all cases of cleft palate which come under my observation of an inoperable type I will refer to Dr. Mitchell.

A FRICTION POLISH (APPLIED DRY) INSURES THE BRILLIANCY OF THE ENAMEL OF THE TEETH

By J. P. CARMICHAEL, D.D.S., MILWAUKEE, WIS.

WHAT is the enamel of the teeth? What is its consistency? What is its purpose? How may it be conserved? What benefits will accrue from its preservation?

Elementary questions perhaps, and yet the failure of dentists to observe and answer them correctly is, in my judgment, the cause of the greater portion of caries and dental pyorrhea which afflict mankind. And from diseased conditions of the teeth spring many of the other ills to which flesh is heir.

The human mouth should present the same aspect as the mouth of an animal—the teeth clean, healthy and shining with a brilliant luster. How many such mouths do you encounter in the course of your practice?

Very few. The average human teeth are dull and lifeless in appearance; often half covered with stain and tartar; the gums inflamed and swollen, the whole mouth a glaring example of neglect.

And this condition, frequently, comes from our lack of study of the enamel, the importance of preserving it and the best methods of caring for it. We know it is there and we know in a general way that it is to protect the softer tissues beneath it. But we do not stop to think much of the gloss or polish of the enamel. Nothing in nature is without its purpose, and the purpose of this gloss is to protect the teeth from the adhesion and accumulation of foreign matter. If the teeth were always kept clean and the surfaces polished to the gum margin, there would be no decay or pyorrhea.

Consider for a moment what, then, is necessary to keep the enamel of the teeth so smooth and gleaming that matter will not adhere to it; a condition we always see in the dog's tooth, clean and shining. The enamel of teeth is extremely hard, as hard as glass, and when its surface is once marred it has been a most difficult problem so to smooth it as again to restore the luster.

In primeval days, when human beings lived close to nature, the teeth were used for grinding dry, coarse foods, and the friction of mastication kept the surfaces polished and healthy. To-day many of our foods are prepared, requiring little or no mastication. We are well advised of the destructive effects of deposits remaining long upon the teeth, and the patient at once may be convinced of the uncleanly

condition of the teeth by using a disclosing solution. The first formations that adhere to the enamel and destroy the luster, but which are not visible, can readily be detected by applying this solution, which is painted over the entire crown of the tooth, and may readily be washed away from the enamel, where the gloss remains unaffected.

This test clearly reveals that the first adhesions formed upon the teeth are about the necks, at the gum margin, and between the teeth. This is due to plaques (or scales) which are an exfoliation of the gum tissue, and, combined with normal secretions, adhere so closely upon the enamel that they are not removed by the tooth brush.

Upon the neglected teeth these exfoliations adhere where there is the least friction; we then have a foundation for other deposits, which gather in quantities sufficient to produce decomposition. The multiplication of bacteria in the decomposition of these deposits is generally accepted as the primary cause of the dissolution of the tooth tissue, resulting in caries; and the same microbic action may well be regarded as the primary cause of pyorrhea.

Our first prescription has always been the tooth brush, which is very beneficial in removing loose particles of food and in stimulating healthy action of the gums; but it will not remove from the teeth the adhesions mentioned, and which are the most harmful.

Our next step has usually been to advise the use of some substance in the form of tooth powders and pastes applied by means of the tooth brush, which cleans the teeth by a scouring process. This, I contend, is where we have made a grave mistake. If by our treatment we are to prevent disease, then let us begin by restoring the brilliancy, so that it shall be possible for the enamel more easily to ward off this foreign deposit.

All the substances in general use for cleaning the teeth are harsh and gritty. Though they be very fine grit, they accomplish their purpose only by a scouring process, thus gradually destroying the natural gloss of the enamel. Although these scratches are not visible to the naked eye, they are sufficient to destroy the brilliancy, and leave the surface all the more susceptible to the reception of foreign adhesions. In other words, the more we scour the teeth, the more we must scour to keep them clean; to say nothing of destroying the life luster. As proof of this, it is only necessary to dry the teeth to disclose the fact that the enamel gloss has been dulled.

It may be necessary, nevertheless, for the dentist to apply a very finely powdered abrasive, to remove the stains in cleaning the teeth. This, however, must be confined to the stained area, and the use of a preparation of a character that will not scratch is imperative.

Experience has proven that a friction dry rub is not only most effective in removing the adhesions, but the life luster becomes intensified. A friction polish is a powder in an impalpable form, possessing enough resistance, when applied dry, to smooth the surface so as to bring the real life luster to the enamel.

A base for the following formula is the result of a newly invented process, which consists of calcining certain minerals, including a combination of rare earth nitrates, at very high temperatures. By this process of treatment an impalpable powder is obtained, having peculiar properties specially adapted for polishing very hard substances without any scratching effect. Even a porcelain tooth may be polished with it and given a lifelike appearance, a result which never before has been attained. The product of this process constitutes the base of Carmi Lusto and is medicated by the addition of certain substances as follows:

R Mineralis calcinatae
Betanaphtholi
Zinci oxidi
Acidi borici
Ol. aromatici q. s.

It is the result of many years of study of the proper prophylactic treatment of the teeth. I have applied the principle in my practice with notable success over many years, and since I perfected the compound, I have held many clinics among brother practitioners. They are in accord with my contentions, and I have been gratified by the volumes of complimentary attestations contained in their favorable reports in practice.

Patients may be instructed for home treatment to dry the teeth and apply this friction polish daily with linen cloth, or cotton roll, rubbing them vigorously. The more persistently this course is followed, the more beautiful and highly polished will the teeth become.

Dentists may instruct their patients how they may tape and polish the necks of the teeth. Inform your patients that, after the polish has been restored to the teeth, any gritty substance they may apply will presently destroy the luster. All tooth powders contain powdered pumice or prepared chalk. Pumice is found in volcanic eruptions and is a stone hard enough to scratch glass. Precipitated chalk, although it may be extremely fine powder, being of crystalline formation, is sharp in its effects, and will dull the high polish of the enamel of the teeth.

Dr. F. H. Skinner, in a paper on Prophylaxis, says: "It is uni-

versally agreed that neither pyorrhea nor decay is found when surfaces have always been kept smooth and polished; that all decay is the result of by-products of bacteria, which can only be removed by friction."

The enamel must be kept so brilliant that the teeth will ward off disease. To accomplish this we must adopt such measures as will restore the teeth to a state of nature, which is in line with the highest attainment in dentistry.

615 Wells Building.

ORAL HYGIENE AS A FACTOR IN EUGENICS

BY ELBERT STEWART, D.D.S.,

President Little Rock Dental Society

I wish to interest this association in Oral Hygiene work. The Little Rock Dental Society has been carrying on the work in this city for some months and has met with good results and public approval. Its members have examined the teeth of the children in the public schools, giving each child with decayed teeth a card urging cleanliness of the mouth, these cards being taken to the parent who is thus induced to have the faulty conditions corrected. We have given lectures in the schools on the care of the teeth, and we take care of the children of the needy when they come to us recommended by the charitable organizations. We hope soon to establish a free dental clinic in connection with the city hospital.

Hobhouse, in *Social Evolution*, says: "To exaggerate is the necessary human illusion. It is the stimulant which sustains." Unfortunately it is also the stimulant which intoxicates, and so I hope that you will pardon the "jag" if you consider me too enthusiastic on the subject of oral hygiene in which I have been so much interested for over a year. I consider the Oral Hygiene Movement an opportunity offered to dentistry such as it has never had, a chance for the profession to be of some real service in the work of evolving a better race.

The charge of advertising has been brought against the profession for its interest in this movement. Well, is it any crime to advertise such a proposition?

Now, I do not wish to be accused of favoring individual advertising,

that is not what I mean. But what I do mean is that the business of Dentistry should be advertised and advertised thoroughly and it can be done ethically by means of the Oral Hygiene Movement. Let's change our attitude towards the business part of dentistry and progress a little. We are behind the times in our notion of how we should serve the public. The newest philosopher of the world, the philosopher of progress, Henry Bergson, says: "To live is to change, to change is to mature, to mature is a ceaseless process of creation. In the universe nothing is finished; everything is in progress, life's a perpetual progress." If this is so, why should we persist in thinking that we have established our final goal and that we have long ago arrived?

As Emerson says: "Self-love is, in almost all men, such an overweight, that they are incredulous of a man's habitual preference of the general good to his own." However, when the physician is interested in general hygiene he is said to be magnanimous, but when the dentist takes up the important work of Oral Hygiene, he is called mercenary. It is said that this movement is commercial and aids the makers of tooth powders and brushes, but are not these manufacturers using oral hygiene propaganda in their advertisements and individually doing more good than some organized dentists? Should we withdraw the advice to "swat the fly" simply because it causes the sale of a few swatters?

However, as C. W. Saleeby says, in "Evolution the Master-Key," "from the dawn of life altruism has been no less essential than egoism. The simplest cell that divides and loses its individuality in two new individuals, shadows forth the sublimest acts of human self-sacrifice. At every stage we see the scope and utilitarian importance of self-sacrifice increasing, in the worker-bee, in the vertebrates with increasing emphasis until we arrive at man. Thus I not merely deny that morality is a product of man, but assert that man is the highest product of morality." Mutual aid closely follows self-aid. Unity of interest or morality pays.

Emerson says, "Nature works on a method of all for each and each for all," a principle romantically expressed by D'Artagnan in the "Three Musketeers" as "One for all and all for one."

Schultze says: "There are two primitive interests in all organisms: that of self-maintenance and that of maintenance of the species. The one is the strong impulse of egoism, and the other the spring of altruism. From the one come all unfriendly and from the other all friendly feelings."

Anyone with the intellect of an ant or a honey-bee ought to be able to see the usefulness of oral hygiene in the eugenics of the race. Any-

one who is not a Solipsist or who does not think like a fossil ought to see what is now the plain duty of the dental profession.

Dr. Osler says, that there is no one thing in the whole range of hygiene more important than the hygiene of the mouth and that a predisposition to tuberculosis results from the neglect of the teeth. The Chicago health department has demonstrated that infection is transmitted by decayed teeth. Cases of scarlet fever, measles, diphtheria, etc., were traced to filthy mouths and epidemics of these diseases in the public schools were stopped by the treatment of the mouths of infected pupils.

Oral hygiene work in various cities has shown that defective teeth and unsanitary mouths mean a financial loss to the community. It has been shown that children with neglected mouths are delayed in mental and physical development and lag several months behind pupils who care for their teeth. This delay in advancement involves an unnecessary expense upon the tax-payers; therefore, the expense of the school clinic is really an economy.

In speaking of the evolution of the race, Hobhouse says: "We cannot undo the structure of mutual aid which civilized progress has built up. What we can do is to substitute for natural a rational selection." Dr. Porter says: "The great reduction in infant mortality has put an artificial check on the law of the survival of the fittest. Formerly the weaklings were eliminated in the first few years of life. Now, by better hygiene, the use of antitoxins, etc., many of these weaklings are saved. This results in an increased number of defective children. Of course, it is a great triumph to save these children from perishing in infancy, but the work is incomplete unless they are cared for and developed to the full of their possibilities. At present there are no philanthropic movements that offer greater opportunities than the plan of looking after the physically deficient children. It is better to give these children a fair chance to grow into useful citizens than to organize charities for them after they have reached a stage of dependency as a result of ailments that could have been corrected in childhood. We hear much of race-suicide, but instead of weeping over hypothetical children we will do much better to devote ourselves to the welfare of the actual children with which we are surrounded."

I consider that, since the public dental clinic has demonstrated its necessity, the child has a right to demand the service. Emerson says: "The poor man, whom the law does not allow to take an ear of corn when starving, nor a pair of shoes for his freezing feet, is allowed to put his hand into the pocket of the rich and say, 'You shall educate me.'"

One of the state's greatest needs and health's surest safeguard is the

dental clinic to inspect and treat the teeth of school children. Children should be made to know that sound teeth help boys and girls win success in life by aiding in the development of physical vigor and mental efficiency, that bad teeth handicap children in the acquisition of knowledge and in the enjoyment of the pleasures of childhood to which they are entitled, by interfering with digestion and retarding growth, that decayed teeth are the port of entry of many general infections, that decay of the teeth is as easily transferred from one person to another as any other disease, and the ability to do good work and live comfortably, eliminating pain, worry, and expense depends upon good, sound teeth.

"The first wealth is health." The knowledge how to obtain and preserve it should be acquired by every child. Public health education is a necessity. Ignorance of hygiene is a public expense that should be eliminated by the dissemination of the proper information.

Ernst Haeckel, the German biologist, says: "Reason tells us that a perfect state must provide the greatest possible happiness for every individual that belongs to it. The adjustment of a rational balance between egoism and altruism is the aim of ethics."

Herbert Spencer, in an essay on "Education," asks the very important question, "What knowledge is of most worth? How to live? In what way to treat the body, are questions which everyone should know how to answer. We infer that as vigorous health and its accompanying high spirits are larger elements of happiness than any other things whatever, the teaching how to maintain them is a teaching which yields in moment to none other whatever. People should understand that the first requisite to success in life is to be a good animal."

Since the first and strongest incentive to action, the first emotion to awaken in man as in other animals is that of self-preservation, of continuing the life of the individual, individual preservation permitting the formation of families and the preservation of the race, the knowledge most essentially worth while is that which aids in the conservation of the race.

Principles of physiology and hygiene are taught in the schools and to the public through the press, but, and I do not consider this opinion attributable to my own narrow-mindedness, I think the special hygiene of the teeth is a neglected factor in this general education for health.

Now, it is true that poor mastication or even years of "gumming it" does not threaten race extinction; but, since in these days of rapidity an efficient worker must be a healthy worker and health depends greatly on the assimilation of properly cared for mouth and certainly happiness upon health, I think that a fundamental knowledge of the teeth and their care is most pre-eminently worth while. It may be hard to estab-

lish the importance of this work in the minds of people, to try to induce them to have done a thing which may necessitate some little pain, as they have for ages feared the pain of dental operations, but they may be shown that oral care will lessen this danger of pain. The fear of the dentists has been advertised and cultivated so long, it is time another attitude towards the dentist was being induced. It may occasionally be hard to convince school boards and public officials, and other obstacles may occur. Well, if we could expect to live a thousand years we might afford to spend some time in removing the rotten spots from every single apple, but as life is somewhat shorter, we had best eat around them, by which I simply mean that we can steer clear of the difficulties met with instead of wasting time trying to remove them. There's always a way.

509 State Building.

AN INCIDENT*

"To ate in them" is more than some patients can do.—EDITOR.

A FEW years ago when I was located in a little Indiana town I was called upon to make upper and lower dentures for one Peter Greely.

Pete was an Irishman, a farmer and a devout Catholic. It was with a little trepidation that I made the plates for him, on account of the flatness of his mouth, but after finishing the work and collecting my fee, I heard nothing of Pete or the teeth for almost a year, when I chanced to meet him on the street one day and noticed that he was toothless.

Our conversation was about as follows:

Self: "Well, Pete, how about those teeth?"

Pete: "Oh, them's foine teeth."

Self: "But why don't you wear them?"

Pete: "Wear 'em? Sure, I wear 'em to meeting."

Self: "Don't you wear them to eat in?"

Pete (astonished): "Ate in 'em! Sure, now, and can ye ate in 'em?"

Self: "Certainly; that's what they are for."

Pete: "Well, now, ain't that noice. Nivver a bit did I think ye could ate in 'em. Them's foine teeth."

* We are indebted for this little "incident" to Dr. Donley M. Steele, of Cisco, Texas.

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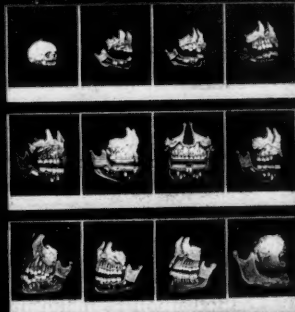
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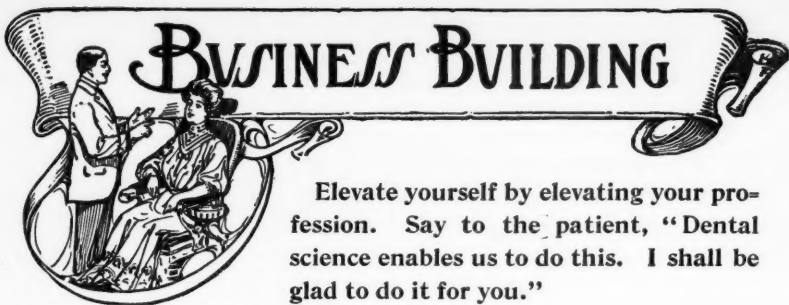


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Elevate yourself by elevating your profession. Say to the patient, "Dental science enables us to do this. I shall be glad to do it for you."

TIME AND SERVICE COST

By JOHN L. KIRBY, D.D.S., HOLTON, KANSAS

WHAT shall I charge my patient for service?

Who shall determine this question?

In what manner can I get at a fee that will be fair to me and my customer?

My answers to these questions are summed up in this statement: Find the *cost* of the commodity you are selling and an intelligent fee can be named in a convincing manner to yourself and patient.

My study of the cost of a dental operation has brought these factors always into that charge—time, material, skill and responsibility.

If I know the time consumed in performing an operation or producing a finished piece of work, I have a definite method of apportioning the overhead expense to that piece of work or to that operation.

If the time is known for an operation the operator's fee can be more intelligently adjusted. Unusual skill or great responsibility will, of course, increase the fee for the operator, but the great mass of services will be figured on time alone.

I intend that every operation in my office shall carry its just and legitimate share and only its share of the overhead expense, and that each operation will carry its charge for the operator and pay for the materials used in that operation besides.

Each part in this total cost I want held sacred, and I never intend that one department shall be robbed to meet the deficiency in another department if I can prevent it. Yearly totals are all right and will show desirable results if the cost of each operation has been systematized and made to carry itself.

When I enter the shoe store and consume the time of manager or clerk and don't buy, the store is the loser. The store may lose a customer while waiting on me, and if I don't buy, they must make up the loss on the customer that does buy. The purchaser pays the orig-

inal cost of the goods—the freight, the clerk hire, the manager's salary, overhead—all—yes, even the profit. This is not argument; it is an admitted fact in all lines of business.

I divide time spent at my office into producing hours and non-producing hours.

The producing hours in a shoe store are the hours spent in selling, fitting and delivering shoes to the customer who buys and pays. These customers, and only these, support the business.

In a dental office the same conditions prevail. The hours spent serving those who will be served and who pay for the service are the producing hours; all other time is non-producing. The producing hours bring all the revenue and must take care of all the expenses and cost.

In my effort to apply the overhead expense to the individual operation I found that the knowledge of the time consumed in each operation as well as the total producing time of the year was absolutely essential.

I also found that my individual fee—that is, what was coming to me above material and expense, was more easily adjusted on each operation if I knew the time used on that operation. Consequently I have been and still am searching for the best system of keeping tab on the time of the office.

I now use an S. S. White calendar and place every name upon it, whether they have had an appointment previously or not, and after each name place the time consumed on that patient. On my card system I also keep an accounting of the time on each operation, so that I may gather statistics later for each class of operation. This knowledge is important, as many times we wish to name a fee in advance and the only intelligent method of naming a fee of which I can conceive is to have a record of similar ones performed and the cost figured.

When the patient settles his bill I collect all the time against that patient and figure out his bill accordingly. What do I mean by "accordingly"? Here is my explanation. Last year the office overhead expense in round numbers was \$800. The number of producing hours for the year was twelve hundred. Hence, every producing hour has to carry 75 cents to cover the overhead. If a patient consumes two hours of my time I must collect from that patient \$1.50 to pay his share of my overhead expense. Think this over and see if I am not correct.

Next, every producing hour must carry a fee to pay the operator independent of material and overhead. I try to collect for myself not less than \$2 for an hour. Special skill or great responsibility would increase this operator fee.

The material cost I get at in another manner. A gold crown that

requires three hours to produce would total as follows: \$6 operator fee + \$2.25 overhead + \$3 material = \$11.25. I may charge more, but this to me is an intelligent answer to the question, "What to charge?" because it gives me the cost, and the time used has played an important part in determining that cost.

If a dentist has no time knowledge of his producing hours and the time used on each operation, he will sure have a hard time to find an explanation for some things that are hard to explain at the end of the year.

For many years I have only received wages equal to a carpenter or plumber; the remainder of what I collected I passed on to the supply man and in overhead expense. The poor old operator took what was left.

The producing hours in an office are not nearly so numerous as you would imagine. In six months' accurate record before me I find 544 producing hours out of 1,120 spent in the office—less than half. I spent at the office 140 days out of 181, Sundays included. I averaged

One month of 26 working days, 2 hrs. 40 min. per day

The next of 24 working days, 5 hrs. 4 min. per day

The next of 26 working days, 2 hrs. 52 min. per day

The next of 20 working days, 2 hrs. 12 min. per day

The next of 19 working days, 3 hrs. 00 min. per day

Last of 25 working days, 7 hrs. 25 min. per day

totaling 544 hrs. 25 min. in 140 working days, with an average of 3 hrs. 35 min. per day for the six months, and all this time I thought I was some busy dentist.

The study of time has caused me to quit wasting so much of what is valuable to my income. It has taught me to make every operation profitable. It has helped me to name a larger fee in a more convincing manner because I myself knew the cost of the service and nobody expects to sell below cost or without fair recompense. It has just taught me how to make each patient bear his just share of my overhead, which often is greater than my supply bill. It has taught me to name a fee for myself for each operation and not be robbed of my own fee to pay for material or overhead.

And if the information I have collected will help another to better systematize his time, his expenses or his efforts, my time has been well spent collecting this information.

THE darkest hour in any man's career is that wherein he first fancies there is an easier way of gaining a dollar than by squarely earning it.

—HORACE GREELEY.

DENTAL ETHICS VS. PROFESSIONAL AND PERSONAL DUTIES

BY G. H. SMITH, D.D.S., CHARLEROI, PA.

DENTAL ETHICS is a topic that has been discussed more perhaps than any one subject before the dental profession. Whenever the program committee ran short of material, Dental Ethics has been hauled out, dusted and polished up, and then ridiculed or praised as the speaker saw fit. It is then put back in the pigeonhole for future debate.

We are living in a progressive age, the public at large is confronted with progressive religion and progressive politics. The dental profession is struggling with progressive dentistry. Our most conservative dental magazines are treating most extensively the subjects, business building and service selling talks. This, a few years ago, would have been looked upon as a breach of dental ethics and frowned down. To-day we think more broadly and the Puritan ideas are being shaken from their foundations.

Dentists of the younger generation have reached the place where they see that in order to get a living for themselves and those dear to them, they must practise business principles along with their professional ideas. The colleges have been slow in seeing this, the result of which is, they are sending young men from their doors very well versed in theory, and with too much ethical and not sufficient practical dentistry. In fact, our graduates of to-day are facing the world with a hobble around their cerebellum, labeled ethics. Our colleges still teach ultra-conservative ideas. The young graduate who is struggling along, tries his best to unfasten the hobble, and the progressive man who, perhaps to some, is setting too fast a pace. Our graduate leaves college to-day with the idea that he is going to revolutionize dentistry and put it on a pedestal where it will be a shrine to the suffering public. While this shrine is being erected, there is a duty to one's own self and those depending upon him. In the words of Shakespeare, "To thine own self be true, and thou canst not then be false to any man."

ADVERTISING.

Dentistry is a field in which there is a good recompense for one's efforts, providing proper methods are pursued. In order to receive this recompense one must, as stated before, use business principles. All business, whether professional or otherwise, has to have so much advertising. The writer thought best not to use the word "advertising," as oftentimes it conveys a wrong idea. There is, however, no other

word that means exactly the same thing, so why should we indulge in subterfuges. To succeed either in professional or business life one must indulge in advertising of some sort. Take out most conservative, so-called ethical schools of to-day, and you cannot pick out one that does not advertise. One of our most conservative schools of to-day not only puts its name in front of the public in prominent type, but goes farther and publishes the whole dental faculty from the president down to the assistant. Why is this? Why not let the graduates and their professional service be sufficient advertisement? Why? Because they realize that these men who have accomplished much have a better standing professionally and will be a greater inducement for new students to fill the vacancy caused by the recent graduates than the graduates themselves. However, if the graduate from this school should enter practice and do newspaper or magazine advertising, he would be held in ill repute. This, of course, is inconsistent and unjust.

Advertising should be divided into three classes. First, the malicious advertiser, who announces to the world by flashes of electric signs, posters and much printers' ink. This, of course, should be condemned, as it is a means of getting the public to you under false pretenses, and if a test case was to be fought through the courts, it would not be tolerated. The second method is that indulged in by the hypocrite; this is by far the worst form of advertising, and is indulged in more extensively than one has any idea. Every town of any consequence has its professional men who to-day are building up dental practices by hypocrisy. You find these men in your clubs using membership signs and emblems for commercial purposes. You will find them in the churches as junior and senior wardens, deacons, elders, and even down so far as choir boys, so-called, and the Recording Angel could not find a spark of Christianity in any of them. Why do they do these things? Because they want to mix with the general public, they are the so-called good fellows, well met, who always have a pat on the back for everyone. They are not living on their professional ability but on their good-fellowship. Meet these smooth, silky fellows in their offices, and they will be willing to trade you a peanut for an orange any time. It is surprising what an impression the hypocrite can make for a time. Often-times this hypocrisy is practised for many years without being detected, but as water will reach its level, so will this man be branded. I am glad to say that the day is not far off when this kind of advertising is going to be almost impossible because the conscientious dentist is educating the public faster than the hypocrite can invent new schemes. The third class of advertising brings us up to the definition of ethics as given by the Century Dictionary, namely: "relation to

morals or their principles of morality pertaining to right and wrong," so the third class of advertising we will call moral advertising. All professional men need as much publicity, of the right sort, as they can get. No one can tell another how to obtain this publicity in any great measure. We all have ideas, we all can say do this and not do that, but the best way is to leave it all to one's own morals and conscience. In advertising, if one does nothing but that which he thinks morally right, then there is no need of criticism, at least from one's own conscience, and that is the law given to us all.

DUTIES.

This brings us to our professional duties, one side of which is taught in our colleges, the other side is acquired from general practice. Here is where the colleges and the men who are practising "Brownstone" dentistry are to blame, and where the young graduate suffers.

We are taught to replace missing teeth and repair carious teeth by artificial means. The idea of doing this in the so-called ethical way is drilled into us so firmly that when we open our offices, our ideas are so far above the craving public that it is often hard to bring our professional dignity down to their professional needs. Colleges scorn the idea of placing gold in the interior teeth where porcelain is indicated. For a young graduate to replace a badly decayed incisor with a gold crown is certainly a breach of dental ethics, as taught by his Alma Mater. However, there are conditions where the gold crown is indicated, and if one refuses to make that crown he, no doubt, is following the ethical code laid down half a century ago, but to-day it certainly is starvation ethics. For example, let a patient present himself to a recent graduate from one of our conservative colleges with badly decayed anterior teeth, so extensively decayed that filling is impossible. Crowns have to be made. The graduate makes a fine address about Richmond crowns and all porcelain jacket crowns and then stands back to have his educational talk assimilated, and to wait for the fruits of his efforts. You may, in many cases, let me say the majority of cases, have the patient say, "What I want is gold teeth," disregarding what you said about æsthetic appearances. This will shock your professional pride, and at first you will refuse to replace missing teeth with gold, then get indignant and be surprised that so much ignorance in this advanced age is existing. Of course, to the young graduate this would be the ethical procedure, this was before he received his diploma from the University of "Hard Knocks"; the experience gained from a few cases like this will certainly make him look at the public differ-

ently. We are all in duty bound to educate where education is possible, but before one can walk there is a creeping period to go through.

If you retain only one thought from what has been written above, please remember that *in the absence of social environment, ethical feeling has no existence* if the patient is no higher in social standing than to want gold crowns, etc. All things of course being equal, you have told him the advantages and tried your best to persuade him otherwise, it is your place to restore articulation no matter what method is used. For example, I will state a case from my own practice. A short time ago a patient, forty years of age, came to me with the worst case of pyorrhea I have ever seen. Every tooth was surrounded by a pocket of pus; up to this time the patient had only lost one tooth. Teeth were free from caries, but his mouth was in a terrible pathological condition. By proper treatment and, let me say, persistent, constant treatment, this patient need not have lost a tooth. It was a case for the pyorrhea specialist. I saw that if I suggested a specialist, I would not only be lowering myself in his estimation, but I would be advising him to do something that had never before entered his mind, and by all my talk could not have shown him the wisdom of such treatment. He came to me for professional services and expected the same. I extracted thirty-one teeth without hesitation. After a few weeks had elapsed his mouth was in a healthy condition as far as pathological disturbances were concerned. He is now wearing a full upper and lower denture, tooth trouble is at an end, his general health is much improved, and he is a happier man and has much praise for me. Granting that his mouth was put in a healthy condition, it would have only been a matter of months, perhaps a year, until the same trouble would have started to recur. To stop this you would have had to change the man's mode of living, which was an impossibility. To the ultra-conservative dentist, I did the wrong thing; according to my ethics, I did what was absolutely right.

Now, in conclusion, I will quote from Gladstone: "The law-givers have the same need to be ethically instructed as the individual man." So you see missionary work should first begin at home. Our teachers should not try to govern the code of ethics, for it is a mighty hard thing to gauge the conscience and morals of others by our own.

PAINLESS EXCAVATING.—Inject a dosage of cocain with adrenalin right at the very apex of the tooth, producing after a few moments perfect anæsthesia of the nerve fiber. Especially valuable for the immediate extraction of a live pulp.—WM. HIRSCHFIELD, *Dental Review* (Broomell's "Practical Dentistry").

EXPERIENCES

"LEARN TO DO GOOD, USEFUL WORK, AND HONESTLY WORK FOR THE
BENEFIT OF YOUR PATIENTS."

Editor DENTAL DIGEST:

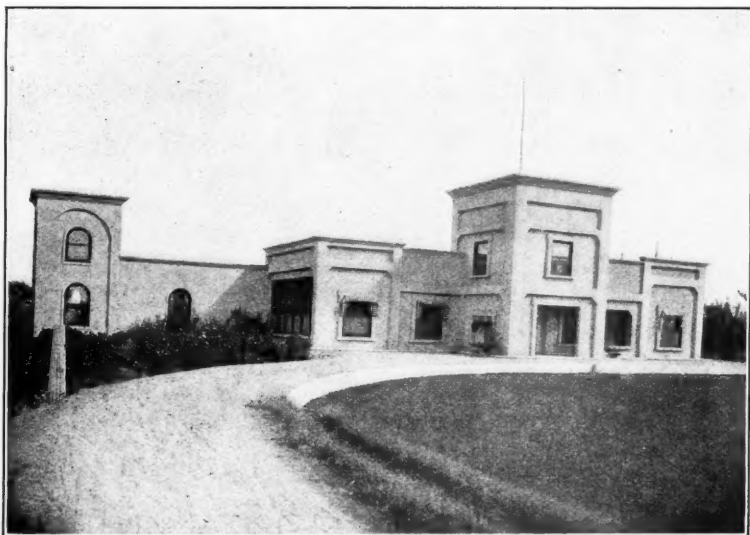
I HAVE received much benefit from reading the DIGEST. I have been much interested in the practice building, Brother Bill, and the dentists' experience department. Some have done better than I have and some have not done so well, and I hope my experience will be a help to the latter class.

I think my experience will show that there is at least one important natural law governing the successful practice of dentistry which every dentist who wishes to be successful must obey unless he considers he is to be the exception to the rule. I think manufacturers, to induce dentists to buy goods, put too much stress on the value of superficial appearances, also many writers do the same with regard to advertising one's self in many ways. I find that good useful work is still so scarce that it will advertise itself. If a man spends as much time making a good dentist of himself as he is willing to spend at advertising himself, the advertising would take care of itself. When this fundamental law is obeyed these superficial points will add to success. I think we all know of this law, but we don't realize its importance. The law is that a dentist must learn to do good useful work and honestly work for the benefit of his patients. If he finds he cannot do that he should go at something else which he can do well. This law was the only one which I tried to obey, as I had not the means, personality or inclination to comply with the other more superficial laws, as I will relate.

In 1888, at the age of 18, I started under a good preceptor and paid him a good price to teach me. In 1890 I opened an office in Chicago after matriculating at college and passing the State Board examinations. Ran my office while attending college. During vacation I ran my office during the daytime and early evening hours. While attending college I did my office work on Sundays and holidays and at night. During dissecting season I did not go to bed for several days at a time, and did my sleeping in the street cars, as my office was eight miles from the college and thirteen from the dissecting rooms. I also did plate work for a number of dentists in my neighborhood. I was graduated in 1892.

For about nine years I averaged a little less than one dollar per hour for my time. I didn't know what to charge. Some dentists were

getting \$10 per hour, and others were advertising fillings for 25 cents a piece. THE DIGEST was not printing its valuable articles on the business side of dentistry then. I did all work for set prices, and by working night and day and living in a very simple way I saved more than you would think, all of which my home folks took away from me because I trusted them. Was discouraged and came West, hoping to make more at ranching. I soon found that ranching had to be learned the same as anything else and it would take a number of years. I decided to continue the work I had learned. I married and in 1903 opened



Fireproof house built of reinforced concrete

an office in a town of about 10,000 having eight dentists. I was in debt and had only a remnant of an old dental outfit, which I put in the corner of a dilapidated machine shop office. I had no sign showing from the street, but had a small printed sign, DENTIST, by the chair, so the machine shop patrons would not think it was a barber's outfit. I hung up no diplomas or other evidence of a dental education, had no card in any of the papers or any other advertising scheme, sent out no cards, was in no club, church or society, did practically no mixing, but I kept my office hours, also the books for the shop, which gave me a living while waiting for patients. I charged two dollars per hour, which made the work cost more than most of the dentists charged.

No contract work. After about two years I was working Sundays and holidays and eating my meals while I worked. In 1905 I built a small tent house to live in. In 1906 we bought an automobile. In 1908 I moved across the street to a better office and raised my price to three dollars per hour. People made less fuss about paying three than they did about paying two. In 1909 my wife and I planned and built our fireproof home of reinforced concrete. We bought the material and had it built by the day. Later we bought an electric coupé, which is excellent for a family car. My office is still the only poor-looking one in town. I intend to move it to the residence next year and have a good one.



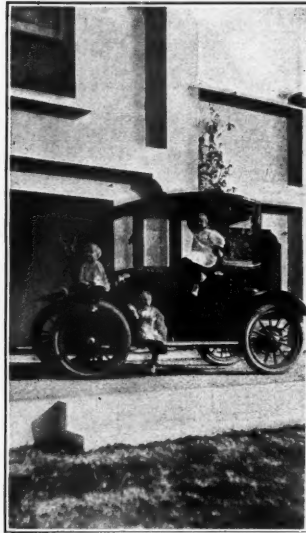
Living Room

I give each patient a paper with my business rules, diagrams of the teeth, columns for recording the hours and minutes consumed at each sitting, and column for entering payments printed on it. The patient then knows what his work has cost to date and can compare the monthly statement with it. Even then once in a while some one says he didn't know my work would come so high, but I can easily explain to him that it is not my fault that he did not figure it up for himself. This plan works so well that I intend to continue using it. Patient pays for time and material where much gold is used.

My hours now are 9 to 5 and no holiday work. Our town has grown to about 15,000 and has fourteen dentists. One, a newcomer, is an advertiser. We have had others, but they have died a natural death. We have a good society, which meets once a month, with a good attendance at 6 p.m. at supper. None of us carry any cards in the papers or any printed advertising excepting our signs. The older dentists refer surplus work to the new men who need it. We have a minimum fee bill, which is fairly well lived up to. An applicant for a license must pass a strict examination, and we have a State law which makes it possible to revoke a license if the holder does not live up to a certain degree of usefulness as a dentist. We have an exceptionally good lot of dentists here and the quality of the work done is steadily improving. Some of the dentists have made more money than I have and have fine homes and money at interest and otherwise invested, and some who have not such fine homes could have, but prefer to invest otherwise.

Yours fraternally,

J. A. M.



The Kiddies

VALIDITY OF WIFE'S PROMISE TO PAY HUSBAND'S DEBT

SINCE under the laws of Arkansas a married woman cannot bind herself as surety or guarantor for the debts of her husband or of a third person, her personal liability on contracts being restricted to those made for her own use and benefit, the supreme court of that state recently held, in the case of Goldsmith Brothers Smelting & Refining Company vs. Moore, 157 Southwestern Reporter, 733, that a letter written by a married woman, stating that her husband desired to buy from the addressee dental supplies for use in his business, and that she guaranteed payment of any account therefor and pledged her separate estate for its payment, did not create any legal obligation against her.

A. L. H. S.

A COMMENT ON THE "EDITOR'S NOTE" REGARDING "M. E. J."*

It is hardly fair for an editor, whose task it is to write and who must be on the job, to antagonize anyone who takes the trouble to courteously and frankly set forth his views, as this writer has done.

I grant Dr. Barker full right to his views. I did not mean that every child would need orthodontia, but that the practice would become general wherever the indications are that there is not room enough for the permanent teeth.

I am a parent. I am not an orthodontist. But following my conversion to Dr. Bogue's view point, I got one of my dental friends to spread the upper arch of my boy of 10 years to where it should be. The second teeth are coming beautifully regular, without help, in an arch not nearly large enough for them before.

I have seen so many cases of great dental and physical benefit to children following this work, that it no longer takes a lot of proving to me. Nor does it require further proof to the parents of these children.

I believe that intelligent orthodontia of the deciduous teeth will spread many narrow noses and dental arches, will aid in the alleviation of many very serious physical ailments, and will insure regularity of the permanent teeth.

And now for Dr. Barker's view, which I am glad to give you.

—EDITOR.

Editor DENTAL DIGEST:

I AM moved to comment on your reply to Dr. M. E. J.'s letter because I think there is a strata of truth beneath his cynicism that is not touched by you.

In the first place, all such essays, it must be remembered, are, as a lawyer would say, *ex parte*. That is, only the favorable side is presented; the essayist undertakes to demonstrate a thesis and therefore unfavorable data are omitted. This, in the nature of the case, is unavoidable; but if the reader thinks any practice thus presented is of universal application, he will find himself greatly mistaken. There is sometimes a large amount of shrinkage between the ideal and the practical. Every dentist knows how difficult it is to do any work at all in the mouth of a child of six years; how difficult it must be to make any appliance stay on those short, blunt little teeth. How difficult it must be to control the little patient and induce him to submit to any treatment whatever. But of all this we see or hear nothing—only his beautiful success. We hear nothing of his failures and heart-breaking disappointments. To some, I frankly admit, the difficulties are prohibitory. I know there are some men who can hammer large gold fillings in a child's six-year molars, but I cannot, partly because I like to have them return to me with joy and pleasure and not with fear,

* August DIGEST, 1913, page 454.

horror and aversion, and because I value a child's love and esteem higher than the fee I would get for a gold filling.

You express the belief that the practice of regulating the temporary teeth will or ought to become universal. I must differ with you. Partly because of the objections before mentioned, but I do not believe the regulation of temporary teeth is wise or needed. Every dentist knows that great changes take place in the jaws from the sixth to the twelfth year. No one can tell what the changes will be and what interference will be necessary. To say that the practice should become general is to assume that because the temporary set are out of occlusion, therefore the permanent set will also be out of occlusion. This assumption is entirely gratuitous, without a single fact to back it up. No one can foretell whether they will or not. On the contrary, we have all seen many children's teeth which during the age between six and twelve were somewhat crowded and irregular, but which, as the jaws developed and expanded, aligned themselves into proper occlusion without any treatment whatever. There is a strong natural inclination to do this. Indeed, I believe that most of the cases illustrated by Dr. Bogue would have regulated themselves; that is, when the child arrived at the fifteenth year very little or no interference would have been needed. The contrary will take a good deal of proving.

D. W. BARKER, Brooklyn, N. Y.

Editor DENTAL DIGEST:

DEAR SIR: In regard to an article, entitled "After Thirty Years of Silence," in your August number, by M. E. J., who is now peacefully growing grape fruit, etc., and how much better he felt after the operation, I wish to say how much better had he continued his silence another thirty years rather than display his ignorance of temporary teeth by his few useless remarks. As a matter of fact, this man has been growing one huge citrus fruit all his life.

Yours very truly,

H. D. D.

THE extent to which the modern child is educated in matters of hygiene appears from a recent episode in a Boston school. The class had visited the Art Museum and the teacher wished to learn what the children had observed. The subject at the moment was the exquisite head of Aphrodite. A little boy who frantically waved his hand was called upon. He announced triumphantly, "I noticed she had adenoids!"

"Why, Peter," exclaimed the shocked teacher, "what do you mean?"

"She keeps her mouth open all the time," was the reply.—*Youth's Companion*.

DID IT EVER HAPPEN TO YOU?*

Here are some good ones. They happen to dentists the world over, not in the offices which serve the wealthy, but in dentistry as it is practised for the common people.

What do you do in such cases?—EDITOR.

1. WHAT is the best thing to do when a patient in the reception room with several other patients present says right out loud: "The filling you put in yesterday came out and here it is in this paper" (when it was only the surplus amalgam they did not spit out when the filling was put in).

2. "The tooth you tried to extract yesterday broke off, and I can feel it with my tongue" (when it is only the socket they feel).

3. "The teeth on the plate you made me are entirely too white" (when they picked that color themselves).

4. "My mother says \$8 is too much to charge for that crown; you put in three for Mrs. Smith for \$6 each."

5. "Papa wants to know if you will pay for a page advertisement in the program of the Knights of Columbus ball. He won't have your name appear," he says.

W. M. THOMAS.

Editor DENTAL DIGEST:

IN looking over August DIGEST, I noticed the article, "Did It Ever Happen to You?" by Dr. W. M. Thomas. Yes, I can say, many times. I am going to say just a few words regarding the above; if worthy of notice no harm will be done.

Answer to No. 1.

Make your explanation before all in the reception room of how sometimes particles of filling material will lodge in remote places of the mouth, between the teeth, etc., remaining there until hard, when the tongue finally discovers them. Have such people take a seat in the operating chair, and show them, with a mirror before them, in a nice way, that everything is in its proper place; tell them should they discover anything wrong later you will be only too glad to make it right. You will find it not a hard task to convince them that everything is all right, and they will go away satisfied, and a good impression will be left with the rest.

* This article, from August DIGEST, is reproduced here that our readers may fully understand the answers.

Answer to No. 2.

Make explanation before all; if you are right, you have the convincing facts. Show the socket from which you took the tooth, show the perfect tooth unbroken; be sure there are no rough edges around socket after tooth is taken out; if so, get rid of them.

Answer to No. 3.

Do not allow patients to select their own teeth. You are supposed to know your own business best, and you are the best judge as to the needs of case in hand. If you have the necessary artistic ability do not allow patients to dictate to you in such a matter. Should you do so, and they do the selecting, substitute something you think will suit the case better and be more artistic. They cannot carry color in their eyes. Should I have a case of this kind I would treat it as I thought best. It is hard to tell some one else what to do or how to speak. Use best illustration you can think of to gain your point, and convince them you are the best judge.

Answer to No. 4.

Make it a practice to have one fee for all for the same grade of work. By that I mean, have a certain style of work at a certain fee, and another, something better, stronger, etc., at a more advanced fee, and you will not get into trouble; all work of each class to be well done. If you have a five-dollar crown, have a five-dollar way of putting it on; an eight better; ten to twelve better or best.

A porcelain crown may be fitted to a flat surface in a short time and will do good work for a long time. Fitted to a beveled surface it will be very much better; if you spend more time, better fee. Fitted as a Richmond crown it will be still better. A gold band, pin soldered in, will be still better and a much better fee. And so it goes! If you are obliged to work for small fees do your work to correspond, but do it well—as well as it can be done in that particular way. The public cannot always afford to have the highest priced work, so we must do the best for them that we can.

Answer to No. 5.

As for page advertisement, I do not think it worth the paper it is printed on. If one wishes to donate to charity, or because of business reasons for a friend, do so, but it is very poor business at best.

Very sincerely yours,

"HAMLET."



PRACTICAL HINTS

[This department is in charge of Dr. V. C. Smedley, 604 California Bldg., Denver, Colo. To avoid unnecessary delay, Hints, Questions and Answers should be sent direct to him.]*

TO REMOVE HARD CEMENT FROM SLABS.—Immerse slabs in a pan of water three or four hours. It then can readily be pushed off with the fingers. This saves the slabs from being scratched.—D. CALHOUN, Assistant to Dr. W. A. WARREN, Watervliet, N. Y.

A SATISFACTORY SEPARATING FLUID.—I find equal parts of shellac and sandarac, dissolved in alcohol, a highly satisfactory separating fluid.—V. C. SMEDLEY, D.D.S., Denver, Colo.

TO REPAIR LOWER BROKEN FACINGS.—Take a disk, cut heads off pins and bend up and down, then slide on a Steele facing. This works lovely. Try it on your next, and it will please yourself as well as your patient.—H. A. MAGRUDER, D.D.S., El Paso, Tex.

SOLID CUSPS FOR CROWNS.—Take a "Hollingsworth" cusp that will approximately fit the case. Make lead reproduction of same. Then carve to proper occlusion. Now take a piece of asbestos about one inch square and one-quarter inch thick. Moisten same until it becomes soft. Place lead button on flat surface, lay asbestos on button. Put a flat piece of steel on asbestos, then hammer until you have lead cusp driven into same. Pick lead cusp out with a sharp-pointed instrument. Now dry until all water is driven out. Lay same on flat piece of charcoal. Place a nugget of gold in depression that will approximately fill same. Heat to a molten state (not white heat). Then press gold into impression with a piece of flat charcoal.—WALTER F. JAHN, D.D.S., Kansas City, Mo.

AN INEXPENSIVE METHOD OF SEPARATING PLASTER IMPRESSIONS.—Dilute ordinary writing ink half by half water and paint impression, using small brush and letting ink dry into plaster. Then make soap solution by cutting up a piece of soap and putting the clippings

*In order to make this department as live, entertaining and helpful as possible, questions and answers, as well as hints of a practical nature, are solicited.

into water and stirring same until lather appears. Then after impression is dry, from the ink, soap same thoroughly and let dry for a few minutes; then wash surplus soap off and pour impression. When plaster is perfectly dry you will find no difficulty in separation, as the ink gives a clear line of demarcation.—EDWARD GRABOFF, D.D.S., New York.

AN EXCELLENT SEPARATING FLUID FOR PLATE CASTS.—To a six-ounce bottle add two teaspoonsful of dry shellac, one teaspoonful of borax, warm water until bottle is nearly full, then place bottle in warm water bath and gradually allow to boil, occasionally shaking bottle lightly. I have used same for the last twelve years with most excellent results.—MAX KERBEL, D.D.S., Brooklyn, N. Y.

BUCKLING OF GOLD PLATES.—To prevent the buckling of gold plates in swaging, cut a slit at the median line, from margin to ridge; lap, when swaged, solder. This should be done in all cases, as this is the weakest point and breaks there. By doing this the weak point is doubled in strength.—L. P. HASKELL, D.D.S., in *Dental Review*.

METHOD OF MAKING WAX INLAY PATTERNS BY THE DIRECT METHOD.—In making the wax inlay pattern by the direct method in deep proximo-occlusal cavities in molars and bicuspid, soften wax to desired consistency, press into cavity with the fingers and immediately apply pressure to same with a blunt instrument or amalgam packer, condensing same as you would amalgam. This will almost invariably give a perfect outline of base of cavity whether a matrix is used or not, and if there should not be a sufficient excess of wax to fill depression made by condensing instrument, quickly soften a small amount of wax, preferably a softer one, and press to place.

If this is done quickly it will usually unite with wax already in cavity, or you can remove pattern and add to same where needed.—M. M. BROWN, Macon, Miss., in *The Dental Summary*.

CEMENT AMALGAM FILLING.—Place one-half of a bunch of amalgam, when ready to pack, on a slab, and then drop a proportionate amount of cement acid onto the amalgam, then add the cement powder and grind the whole mass as required in mixing the cement to a soft consistency. Immediately fill the cavity with the mixture, trim the edges, then add the rest of the amalgam, mix and finish with clear amalgam. The above method well carried out will be a "specific" that will not need an experimental station. To prove the above, cut out

the filling a few years afterward and be convinced. The cement mixed as described will cut off the thermal or galvanic changes and be comfortable in the mouth.

The time has arrived when filling teeth with gold or amalgam as a saver of teeth can hardly be called first-class work. Professor Brackett says of the adhesive joint: "It is as much better as a well mortared is better than a dry brick wall in masonry."—L. C. TAYLOR, in *Brief*.

COLORING PORCELAIN.—The best results may be obtained by mixing a small portion of the deep-colored mineral stains with the ordinary high-fusing porcelain enamels. In this way we can produce any shade or color we may desire. We can use either a small amount of mineral stain with a porcelain enamel, which itself approaches the shade we wish, or we can use a greater amount of the mineral stain and the porcelain enamel of a lighter color than the shade we wish to produce. The mineral stains alone generally produce a color too deep or decided. And, again, they will fade if they are used alone on a facing that is to go through the heat of soldering, while this bleaching will not occur if a large proportion of high-fusing porcelain enamel is used.—E. E. HAVERSTICK, D.D.S., St. Louis, Mo., in *The Dental Summary*.

ANSWERS TO QUESTIONS

Editor PRACTICAL HINTS:

IN your department of the August Digest, page 466, Dr. D. W. Barker, Brooklyn, N. Y., suggests lining cavities with oxyphosphate and making the filling of synthetic cement. He then asks if the results will be good. They certainly will.

For a number of years every cavity that I have filled has been lined with oxyphosphate cement, whether the filling was made of gold, amalgam or silicate cement.

I have never put in a silicate cement filling without an oxyphosphate lining. For that reason I escaped many of the bad results which occurred in the early use of the silicates. My silicate fillings failed, but the oxyphosphate cement protected the tooth from discoloration and decay till they were discovered.

By all means, line your cavities with oxyphosphate cement for synthetic cement and all other fillings. One manufacturer has now on the market an oxyphosphate cement which is quite translucent, and which he recommends for this special purpose.—S. E. JOHNSTON, D.D.S., Leavenworth, Kans.

Editor PRACTICAL HINTS:

I NOTICE your reply in the August DIGEST to the inquiry of Dr. G. L. Buchanan, of Wray, Colo., as to the best method of removing a Steele facing from a bridge.

We naturally have given this matter a great deal of attention, and the best method that has been obtained from our numerous inquiries is as follows:

If the bridge is in the mouth there is no way in which they can be removed without destroying them. However, if the bridge is out of the mouth, we recommend the following as the best way to accomplish the desired results. Secure a small quantity of sand and place it in a receptacle over a Bunsen burner; bury the bridge in the sand and allow it to come to a low red heat and maintain it for forty-five minutes to one hour; then allow the bridge to cool down and you will find that the cement has been calcined and usually the facings will slide off without difficulty. If, however, it still causes trouble, then place the bridge in a pickle of 25 to 50 per cent. muriatic acid, cold, and the cement will readily dissolve out.

Under no circumstances do we advise you to use nitric acid, either hot or cold, in connection with our backings because the platinum post contains silver and the silver will be dissolved. Neither should the backing be boiled in any of the pickles.

Of course if the bridge is in the mouth no method has been found for removing them, without destroying the facing.

Trusting this will be of interest to you, we are,

Yours truly,

THE COLUMBUS DENTAL MFG. CO.

Editor PRACTICAL HINTS:

HAVE found that investing broken bridges with Steele facings and heating to redness for a few minutes and then tapping facing, will easily remove same.—S. ROTH, D.D.S., Baltimore, Md.

ALUM FOR PERSPIRING HANDS.—Operators whose hands perspire easily will find an alum cake, such as barbers sometimes use, very serviceable for rubbing their fingers on and rendering them dry.—*Le Laboratoire et le Progres Dentaire* (The Journal of the Allied Societies).



**SUGGESTIONS RELATIVE TO METHODS
FOR SECURING CO-OPERATION OF CHILD
PATIENTS IN ORTHODONTIA***

BY DR. D. P. MACMILLAN,

*Director of Department of Child Study and Educational Research,
Chicago Public Schools*

(Concluded)

DISCUSSION ON THE PAPER OF DR. MACMILLAN

Dr. Lloyd S. Lourie.—I consider this paper of unusual benefit to us. We go to considerable pains to get accurate impressions, models, photographs, etc., in order to consider the physical and mechanical problems to be encountered in our treatment. How many of us have made any preparation for dealing with the temperaments of our patients along the lines indicated and suggested in the paper of Dr. MacMillan? We have left that matter entirely too much to chance. I know I have, and I believe that where we have been successful it has simply been due to the fact that we have been fortunate in hitting upon the proper means of handling these patients. Some of us have natural aptitude for dealing with these cases of children generally. Many general practitioners of dentistry cannot get along with children and even that type of man would be able to add to his success if he would, at the start, adopt the plan outlined in this paper, of having an introductory visit for the purpose of dealing with the child's mentality and securing its co-operation.

Of course, there are many valuable suggestions in the paper that we will be interested in examining and analyzing and adopting, but to me the important thing is the idea of the preliminary plan of dealing with the child. When it comes to some of the minor details of dealing with children, I believe one of the most important is to relieve their minds of fear. I do not detract from the value of the general practitioner's service in the least, but many children come to the orthodontist in fear, the result of dental operations in which the dentist was obliged, from the nature of his work, to hurt them, whereas it is unnecessary in orthodontia. If I hurt a child it is because of some accident on my part, or a lack of co-operation on the part of the child. I arrange my appliances so that my promises can be fulfilled, so that if I get too much pressure on a tooth

*Read before the American Society of Orthodontists, Chicago, Ill., 1912.

the patient is at perfect liberty to relieve it. Of course, some parents will say that you cannot give the child that privilege, and if you do, that it will take advantage of it, but I have not found it so. I secure the confidence of the child first. I would not make a promise unless I could carry it out. If I should tell a child that I am not going to hurt him, and then hurt him, that child would not have confidence in me. A great many men assume that children are not capable of reasoning or appreciating explanation. They can and will, and time spent in explaining to them is well spent. Not only must the explanation that pain is not a necessary part of the treatment be made clear, but we should impress this upon the parents as well as the child. Many times I have secured the consent of children to do certain work for them, yet the parents have been so thoroughly convinced that pain and severe physical and nervous strain were a necessary part of the orthodontic treatment, that it was difficult to get that idea out of their heads.

Another thing in which I differ from some is this: I would not force a child to have anything done. I believe that is a mistake. I have turned several children away from my office simply because I could not change their point of view. One young lady in particular was just as emphatic in her assertions that she would not be treated as was the girl mentioned by Dr. Ottolengui yesterday. I told that patient I would refuse to do anything unless she changed her attitude. The case went along for six months; in the meantime the young lady found I was not going to antagonize her, and it was not long before she was actively co-operating with me in the treatment, though the parents had lost interest.

Dr. J. Lowe Young.—I have been very much interested in this paper. I think it is one of the best we have ever had before this society. I think it will do the members of the society more real good, probably, than almost any paper we have ever had, and I think we are very fortunate to-day that we have had Dr. MacMillan give us this paper.

I really cannot take any objection to the paper. There is one point Dr. Lourie brought up that I wish to enlarge on somewhat, and that is the foolish attitude of the parents in many of these cases. I have had one of the sweetest and most delightful of children to work for. She would absolutely let me do anything, and yet the mother, after I had been treating the child a little while, would come to me and say, although I did not know there was any friction going on, "Doctor, I don't understand how you have been able to do this for my child without hurting her." She says every time the child comes home from my office she asked her, "Did he hurt?" The child would reply, "No, mother." I told the mother that she was not acting fairly with me; that she ought to know

perfectly well that if her child was having any pain she would say something about it. "Yes," the mother would say, "I did not realize this could be done without pain," and that started me on different tactics. I insist always on having an audience with the parents. I prefer, if possible, to get both of them present, but always one, before I begin the treatment of a case. I make it a point to bring it clearly to their attention that the operation will not be a painful one and that I do not want the parents to mention even the word hurt or pain to the child; that if the child is having any trouble and complains, then the parents are to let me know. I do not intend that the child should suffer. I make that point clear, and I find it has a beneficial effect on the parents.

Dr. Lourie spoke of never forcing a child. I believe there are certain cases of young children where it becomes necessary—at least I have found it so in my practice, and I won out. I had one little fellow, eight or nine years of age, who never was controlled before he came into my office. But I had no trouble in taking impressions, and I bribed him to let me put on an upper appliance. I did not have much trouble—in fact, I did not have any trouble. He came back for the lower appliance and said to me, "You are not going to put it on." "Oh, yes I am," said I. He said, "You are not"; but I said, "I am." The boy put up a fight and I "threw my hat in the ring" and got busy. He said, "I won't open my mouth." I replied, "I don't care." I got two fingers in the corner of his mouth and he opened it. He tried to get my hand away with his. I had my assistant hold one of his hands and I held the other. Then he started to cuss me. I put my hand over his mouth to prevent this and he cussed me through his nose. I closed that and held him until he began to get dark from lack of air. I let go and said, "John, have you had enough?" He replied, "Yes," and was crying. I said, "Are you going to be good?" He replied, "Yes." I said, "That is right, my boy." I went to work and put the appliance on, and after I got through we had a hugging match. We were very good friends. His mother was in the room all the time. But he has a deficiency, without doubt. I have never been able to keep a ligature on that boy's teeth. I do not know how I would do with wire ligatures, but he cuts off the silk ligature before he leaves the office. I have treated him with other methods, and I am getting him very near to the final treatment. There was a child who could have been appealed to by waiting for at least several years, but as I believe in the early treatment of such cases, I decided to have a fight and have it over.

Dr. R. Ottolengui.—Sometimes we are very sensitive to the character of the individual with whom we deal. We jump immediately to the

conclusion as to what is the best line of treatment. The very last boy that I saw before I left New York came in incidentally with his mother, and there is no work to be done for the boy until next year. I knew nothing of his character or temperament. I cannot tell you what led me to make the remark I did. But I took him by the shoulders and said, "Goodness gracious, are you only twelve?" He said, "No, I am only nine." He was delighted because I took him for a boy twelve years of age. That will be a valuable asset to me because I have since been told that he is a bad boy. I had flattered his vanity when I took him to be twelve. That is only an incident, but I have made a good impression by suggestion. The suggestion in his mind may lead him to think, "Well, here is a man I am going to get along with, he appreciates me." As I have had a hint from his relatives that he is difficult to deal with—he is the only child and a spoiled child at that—it will become necessary during the first few visits of that boy to the office to treat him absolutely without discomfort. He must have his good opinion of me accentuated and deepened until it will be a great surprise to him if I do anything to him that hurts him. If I should hurt him the first day he comes to the office he would think it was intentional and he would not want to have anything to do with me.

I have another boy in mind, more or less a weakling. His people adopt a good means of helping him. If he shows timidity his mother says to him, "Jack, are you a man or a mouse?" "I am a man," asserts the boy, and the assertion stiffens his backbone. The first time he came to me and I wanted to take an impression of his mouth he was timid. He looked up and said, "Doctor, can I ask you something?" I said, "Yes." "Did you ever do that to a boy my size before?" "Certainly, and to much smaller ones." He said, "All right, you can do it to me."

But there is a great deal we have to learn. We cannot treat all children alike. Some we can treat through experience and some by intuition. A good deal perhaps we can do by rules. But the fundamental principle of success with children is that you must be fond of children; not pretend to be fond of them, but actually be fond of them. Believe me, if you hate a child he will find it out without any letter being written to him on the subject; and in the same way, if you love a child, he will do a lot more for you than if you are just thinking of dollars and cents.

Dr. B. E. Lischer.—I would like to ask Dr. MacMillan a question regarding untruthful children. I take it for granted he is aware of the fact that the number of apparatus for treatment requires co-operation of the patient to the extent that certain parts of it must be renewed by the patient. Let us take, for instance, the application of the elastic rubber band.

The child is asked to renew it in order to avoid frequent visits to the office. I have come to the conclusion in several of my cases that the child replaces them on the way down to the office. Of course, we all have these experiences, and we have several ways of dealing with children, but I would like to have Dr. MacMillan state what he considers the best way of treating that kind of child.

Dr. Varney E. Barnes.—I am much interested in that part of the paper of Dr. MacMillan which deals with the subnormal child. I am glad he touched on that phase of the subject. I have been experimenting now for two years with the children under the care and watch of the teachers of the special schools in Cleveland who have taken orthodontic treatment, and there has been a remarkable improvement in the children, but I do not think such treatment will bring the abnormal child up to normal. It may aid them.

Again, in controlling these children, we must remember we are dealing with subnormal of different grades, and the one that is remarkably subnormal may require some test to determine the relation between the physical and mental condition of the child. That test will give suggestions how to manage a child along the lines Dr. MacMillan has suggested. You cannot expect to do with them as with others. You must not only appeal to the child, but you must know that you have the co-operation of both parents. I have absolutely refused to undertake the treatment of a case unless I have the co-operation of and a statement from the parents that they will help me when I have not the child under control.—*Items of Interest.*

DENTISTRY IN VENEZUELA

DENTISTRY in this country has progressed, and is progressing, nobly, so much so that the work of the best Venezuelan dentists may be compared favorably with that of the leading man of the profession in the United States.

By decree of the National Congress of 1910 was created the Dental School, which has not yet, however, been established. In October, 1911, the Ministry of Public Instruction decreed the opening, as an annex to the Central University, of a three-year course in dentistry, with three professorships, at the end of which the student, after passing an examination, will receive his degree as Professor of Dental Surgery. The three courses are in charge of one M.D. and two dentists with diplomas.

The majority of the dentists were graduated and have practised in

the United States, and it may be said therefore, without exaggeration, that dentistry in this country is on a par with that of the most cultured nations.

Among the leading dentists of Caracas having the most fashionable clientèle are the names of Drs. D. Lossada Diaz, L. M. Cotton, J. P. Cuéllar, Henry Baiz, Diego Meza, Cesar V. Anzola, etc. Dr. Mortimer Ricardo, nearly seventy years of age, is the acknowledged and respected dean of the Venezuelan dentists.

Formerly there were dental societies, but their lives were short, due possibly to the lack of unity in the profession. To date, all efforts to consolidate the profession into a power representative of the ethical unity of the profession have been in vain, but no doubt the day is not far distant when, all obstacles having been removed, the profession will be represented by a representative scientific body.

In July, 1911, the Centenary of Independence, the first Venezuelan Congress of Medicine met in Caracas, and at its dental session several dentists read original papers of great importance, of which we recall the names of Drs. L. M. Cotton, J. P. Cuéllar, Diego Meza and Cesar V. Anzola, which were received with great favor by the press. This congress was the leading feature in the celebration of this memorable centenary.

There are in the capital dental offices fitted out luxuriously and with the most complete equipment of the best dental offices in the world, with all the latest improvements, professional and electric.

THE USE OF ASPIRIN IN DENTAL PRACTICE

BY J. W. McLERAN, D.D.S., AINSWORTH, NEB.

ONE of the most common and hardest propositions we come across in practice is the relief of those inflammatory conditions involving the periodontal membrane preceding alveolar abscess. To give immediate relief from the pain without using morphine or something of a like nature, has always been a hard proposition to overcome. Aspirin does the business.

Something over a year ago, while suffering with a bad case of iritis in my left eye, I learned something of the value of the above remedy as an abortive in inflammatory conditions. Iritis, or inflammation of the iris, cannot be treated except through the general system and the pain is intense. Under direction of a prominent Omaha oculist, after using all the morphine I dared take, without relief, I went under a course of treatment with aspirin in five-grain doses.

Fifteen grains would always bring relief. A fortnight of this treatment, and its effects set me to thinking. Why not use this remedy in dental practice to abort and relieve the pain in deep inflammatory conditions.

I have been using it ever since with wonderful success. In every case where the inflammatory condition is taken in time it will arrest it. I prescribe it in five-grain capsules, one every hour until pain ceases. Usually two or three doses will suffice, but there need be no fear of an overdose. Have seen patients under medical treatment take as high as 160 grains in twenty-four hours with no bad effects.

Some stomachs, however, do not tolerate it very well, and it is always best to prescribe it with milk.

ASPIRIN (Monoaceticacidester of salicylic acid). Description: White, fine, crystalline powder of acid reaction, easily soluble in alcohol and ether; almost insoluble in cold water. Decomposed in solution and incompatible with alkalies, such as sodium bicarbonate, ammonium carbonate, etc.

Dose: 5 to 15 grains, in capsules, wafers or tablets. Should not be administered simultaneously with alkalies or alkaline mineral waters.

CLINICAL EXCERPTS.

BROMURAL IN DENTISTRY

By PAUL HOFFMAN, DENTIST, BERLIN-FRIEDENAU

BROMURAL was used in over 100 cases of dentistry and always with the best effect. When given before the induction of ethyl-bromide anaesthesia the amount necessary to produce anaesthesia was less and the period of induction was shortened. It was also used, before the injection of the inferior dental nerve, in chiseling the lower jaw. The anxiety of apprehensive patients vanished completely by these means. When bromural was given before painful drilling the distress caused was very much lessened. Although the patients still felt the pain they remained perfectly quiet. The same result was obtained in the resecting of the extremities of roots and in operations on cysts. Bromural also acted well in preventing after-pains; it produced dreamless, quiet sleep, without headache.

Hoffman only notes two negative results amongst the 100 cases:

1. A case of a very excitable gentleman who was going up for an examination.
2. A paralytic *in extremis*. The author regards bromural as a very extraordinary remedy, free from all injurious after-effects.—(Abstract from *Deutsch. Zahnärztl. Wochenschrift*, 1912, No. 27.)

EDITORIAL

WHY WE DO NOT GET BETTER PAPERS AT MEETINGS

THERE are approximately 40,000 dentists practising in the United States and Canada. From 25 per cent. to 40 per cent. of these are members of dental societies. At the various society meetings, papers on dental subjects form important parts of the programs. Probably the vast majority of contributions to current dental literature are in the form of papers read at some dental society meeting. For the purposes of this discussion, therefore, we may accept those members who attend society meetings and those dentists who read papers before such meetings as representing the profession, and the papers as representative.

With charity for all and malice toward none, it cannot be said that the average of papers presented at dental meetings is such as the caliber of the men writing would entitle them to present, or such as the caliber of the men listening would justify. The average of attendance on papers indicates that they are not generally highly regarded. Certain men in the profession always draw good attendance, on whatever subject they lecture. And certain subjects draw good audiences with most any lecturer. But it is not uncommon to find only a corporals' guard present for a considerable number of the papers at any meeting. And no one can follow any great number of dental papers without coming to the conviction that the average of papers is not nearly so high as it might be made, and not so high as is due the men who assemble to listen or those who seek to learn by reading the paper in print later.

I believe the average of papers is what it is because the arrangement by which the papers are obtained is unbusinesslike, one-sided, and unfair to all concerned. I believe also that the establishment of a businesslike and equitable basis for the production of papers would result in much better papers and in much greater knowledge on the parts of hearers and readers.

What is the usual course for the production of a society paper on a dental subject? A dentist having unusual knowledge of a subject is asked to put his knowledge into written form and present it for the benefit of his professional brethren. He may be asked to attend a dental meeting to which he would not otherwise go, and to consume perhaps three days. The society will pay his railroad fare and hotel bill.

This arrangement is distinctly unfair to the lecturer up to this point. The preparation of a really valuable paper means a great deal of time and labor. Certain men in the profession can write good papers on a few hours' notice. But this is not possible for the average man.

It may take him weeks. I have frequently spent months in the preparation of a single paper. It often takes many hours to prepare the models or illustrations necessary to give a lecture its greatest value to the audience, and save in rare cases, these illustrations may cost considerable sums. I know of dentists who have spent as high as \$300 to illustrate a paper.

The society's proposition is unfair to the author because it requires him to take many hours from his labors or his rest for the preparation of his paper and his illustration. It may also require him to spend money. And for the hours of labor and the money there shall be no return to him, save the consciousness of having benefited others.

The society's proposition also requires him to take from his regular occupation two or three days of income-producing time, in order that he may benefit others. For this loss of time there is to be no recompense.

The society members then expect to receive free, save for the mere cost of bringing it to them, the benefits of this time, labor and expense on the part of the author.

It is not possible to regularly receive something for nothing. And while really great papers are sometimes offered in this way, and while much of our present progress is the result of donations of this sort by public-spirited dentists, the average result is a half failure for all concerned. And the dentists who attend the meeting in the expectation of receiving benefit are those worst injured.

TWO CLASSES OF DENTISTS AS EXCEPTIONS

As you read this you will doubtless recall certain men of prominence in the profession who are willing to journey from one end of the country to the other and deliver really fine lectures and clinics, if only their railroad and hotel bills are paid. I think of several such, very fine men who have done much for the profession.

If you examine such cases closely, you will find that in many instances the subject of the lecture is some article inseparably connected with the technique described. It may vary from a new form of orange-wood stick to a new floor covering for the operating room. It is not unlikely that the author is in business for himself, supplying the articles required for his technique. He can very well afford to give the lectures, for his expenses only. He could often afford to give them and pay his own expenses, and perhaps even a small fee for the privilege of lecturing. And you may be sure that he gives to the production of his paper much time and care. Do not understand me as belittling what these men give us. I would rather listen to one of them than to most of our other speakers. I'm sure to get something worth while. Only I

don't want you to cite them as instances against the main contention of this paper. And before you bring up the really fine speakers in our ranks, just stop and think a moment whether their speaking is connected with the sale of that which they talk about.

The second class to be excepted are the teachers in our colleges, whose salaries go on during the time given to preparation of papers and clinics and their delivery.

This paper deals with the average practitioner who gets no pay for the time devoted to the preparation or delivery of his paper, and loses his income during that time.

Suppose that a dental society meeting is to be held in your district or state. You plan to attend. You keep two or three days free from appointments, thereby shutting off your income. You pay your railroad and hotel bill. And you hear a lot of medium class papers, largely because no one of the essayists could afford to prepare a good paper, under the conditions. You go home with little benefit where you might have had much.

Do not mix subjects and say that you had a good time and rested up and met a lot of old friends and made new ones. This paper doesn't deal with that part of the subject and is not a discussion of the benefits of rest and acquaintances and such subjects. It deals merely with the question of professional benefits received from the papers. And on the average those benefits are small where they might be great.

WHAT HAS THE ESSAYIST DONE?

If he is in limited financial circumstances, as most members of the profession are, he has accepted the invitation of the society with the intention of doing his best. But he cannot take the best hours of the day for the preparation of his subject. He has to put it off till idle hours, or the evening hours, when his brain is pretty sure to be tired. Now bear in mind that the preparation of a paper by a dentist not skilled in writing is no small task. And he puts it off and puts it off till the day of the meeting is at hand. Then he does the best he can under the pressure of need. It is not always a credit to him. It does not represent his best thought or knowledge on the subject. It does not carry his audience along with him or instruct them as it should. It is an ordinary paper on a subject of which he knows a great deal, and on which he could, under other circumstances, greatly help many.

WHAT MIGHT BE DONE

It is impossible to keep on getting what one does not pay for. And dental societies cannot receive from their members or others the best thoughts of their brains unless they make it possible for the author to

really devote the proper time to the preparation of his subject. Let the society say to a limited number of authors, "We will pay you \$50 or \$100 or \$200 to read before this society a paper on such and such a subject, in addition to your transportation and hotel bill." If the essayists were invited with discretion, they would be men who would gladly recognize their obligations and would devote to the society not only the time paid for, but probably much more. There might not be many papers read at any one meeting, but the chances are that each paper would be of real value.

WHO WOULD BENEFIT?

Everybody.

More especially the members who attend the meeting. It is more worth while to listen to two or three really good papers, which benefit one in all after practice, than to a number of papers of no particular merit.

The society officers would benefit. Do you not think that if they could offer one essayist \$200, one \$100, two essayists \$50 each, and two more \$25 each, they would search diligently for the men who could contribute something distinctly worth while? Would it not be a greater pleasure to search thus than to have to rake and scrape the entire profession to find a few men who can afford to take time to prepare average papers?

The whole profession would benefit. For every good contribution to the current professional literature does not die away on the ears of a few hearers. It is passed to the thousands of practitioners who read and apply.

HIGHER SOCIETY DUES NECESSARY

It will probably be retorted that the dues now charged by the societies will not permit such a course. Probably that is true. But the member who can afford to pay for a ticket to the society banquet, can afford to pay \$1 each for five good papers at his state or district meeting or \$5 in all. It would be cheaper to him in the end than his present course, because he spends his time and money to go to the meeting. The slight additional expense would make all the rest of the expense more profitable. If he cannot afford to do this, he really doesn't need a society meeting half as much as he needs to stay at home and revise his business methods till he can afford it.

WHAT WOULD BE THE RESULT?

Each of us could look forward to meetings at which men of known worth would teach us what has made them of worth. We could have

all our little collateral pleasures of association and rest, and still return home better dentists than we were before.

We should develop a class of dentists who could speak with profit to those who listened. Younger men would be secured by the smaller meetings at lower fees. As they were recognized to possess ability, they would be secured by large meetings, and so on up the line, until our big meetings would be extremely valuable. Some day, as a result, we should really have a literature in the profession.

We should have better attended meetings. You who read this know that oftener than not you are disappointed at the meeting. Many a valuable evening is frittered away listening to some wind-jammer who should have never been allowed on the platform. Why do half or more of all the dentists in the country stay away from the meetings? It is not because of ethics. It is because what they have seen and heard have led them to call us a "bunch of hot air artists." They are *not* right. Much that has been done has been through the societies, but there is much of right in what they say.

Why do large numbers of the men who go to dental meetings stay away from the papers? It is because they don't think the papers worth while. Put on a really attractive paper and see what happens. Let it be known that any one of half a dozen dentists is to speak, and the room will be filled. It is known that they have something to say that is worth listening to. They say it in few words, and they stop when they reach the end. That can be done in any society that will pay men enough to permit them to prepare papers of real merit.

Why can the dental manufacturers hold a clinic and attract more dentists than any dental society save one or two? A certain manufacturers' clinic registered 3,600 dentists, counting one dentist one time. An attendance of 2,000 to 2,500 in thickly settled communities is not uncommon and from 700 to 1,000 in more thinly settled parts. Dentists often attend from a distance of 700 miles. It is because the manufacturers give great time and preparation to the clinics. Skilled clinicians are in attendance. You can get condensed practical information on almost any dental subject. In other words, arrangements are made to give the dentist value in return for his trouble in attending.

When our societies recognize that relations between the essayist and the hearers must be on a basis of an exchange of equal values, that is, that the hearers can benefit only as they are willing to pay for the labors that benefit them, we shall have better essays, better and bigger meetings, and a better informed body of dentists.



BOOK REVIEWS

POPULAR ESSAYS UPON THE CARE OF THE TEETH AND MOUTH. By VICTOR C. BELL, A.B., D.D.S., Lecturer of the Board of Education, New York City; Senior Demonstrator in the New York College of Dentistry; Lecturer and Dental Surgeon to the German Polyclinic. Tenth edition. New York. Parker P. Simmons, London, 1912.

This, the tenth edition of this valuable little book, has been revised throughout and some additions made to the text.

The work is the outgrowth of Dr. Bell's experience in his daily practice. For many years he has deplored the unconscious ignorance of the general public in regard to the proper care of the mouth and teeth, and in this little book there will be found much to enlighten people, especially the young, for it has not been written for dentists alone. Simplicity of style has been cultivated, and all technical terms have been avoided as much as possible.

The toilet of the mouth is of the very first importance; children in their early years should be imbued with this idea and taught the value of each little tooth and the necessity for using the toothbrush in a systematic and sensible manner; also that the condition of the oral cavity has a great influence on the general health, and that an unclean, badly smelling breath makes them obnoxious.

The book is profusely illustrated and contains a number of recipes for lotions and powders.

The little volume has been adopted by the Board of Education of New York City as a text-book and supplementary reader in the schools.

BOOKS RECEIVED

ANATOMY, DESCRIPTIVE AND APPLIED. By HENRY GRAY, F.R.S., Fellow of the Royal College of Surgeons; Lecturer on Anatomy at St. George's Hospital Medical School, London. New (American) edition, thoroughly revised and re-edited, WITH THE ORDINARY TERMINOLOGY FOLLOWED BY THE BASLE ANATOMICAL NOMENCLATURE, by EDWARD ANTHONY SPITZKA, M.D., Director of the Daniel Baugh Institute of Anatomy and Professor of General Anatomy

in the Jefferson Medical College of Philadelphia. Imperial octavo, 1502 pages, with 1225 large and elaborate engravings. Cloth, \$6.00, net; leather, \$7.00, net. Lea & Febiger, Publishers, Philadelphia and New York, 1913.

JOHN HUNTER AND ODONTOLOGY. By J. F. COLYER, L.R.C.P., M.R.C.S., L.D.S., Dental Surgeon to the Royal Dental Hospital of London and to the Charing Cross Hospital; Examiner in Dental Surgery, Royal College of Surgeons of England; Hon. Curator Odontological Collection of the Museum of the Royal College of Surgeons of England. Illustrated. London: Claudius Ash, Sons & Co., Ltd., Broad Street, Golden Square, W., 1913.

HOW TO COLLECT A DOCTOR BILL. By FRANK P. DAVIS, M.D., Secretary Oklahoma State Board of Medical Examiners, 1908-11; Superintendent Oklahoma State Institution for Feeble-minded, 1910-11; Member County, State and American Medical; Member State and National Eclectic Associations; Member Oklahoma Association of Charities and Corrections. Publisher, Frank P. Davis, M.D., Enid, Okla., 1913.

THE AMERICAN TEXT-BOOK OF PROSTHETIC DENTISTRY. In Contributions by Eminent Authorities. Edited by CHARLES R. TURNER, M.D., D.D.S., Professor of Mechanical Dentistry and Metallurgy, Department of Dentistry, University of Pennsylvania, Philadelphia. New (4th) edition, thoroughly revised and rewritten. Octavo, 856 pages, with 900 engravings. Cloth, \$6.00, net. Lea & Febiger, Philadelphia and New York, 1913.

SOCIETY AND OTHER NOTES

CONNECTICUT.

The Dental Commissioners of the State of Connecticut hereby give notice that they will meet at Hartford on Thursday, Friday and Saturday, November 13, 14 and 15, 1913, to examine applicants to practise dentistry. Application blanks, rules, etc., will be mailed by the Recorder upon request. By order of the Commission, EDWARD EBERLE, *Recorder*, 902 Main St., Hartford, Conn.

The nineteenth annual meeting of the Northeastern Dental Association is to be held in Foot Guard Armory Hall, Hartford, Conn., October 14, 15 and 16, 1913. The committee of the Association promises a remarkably good meeting. Essays, clinics and exhibits will be well worth a good attendance. All ethical members of the profession are invited to attend. F. T. MURLESS, JR., *President*, Hartford, Conn.; EDGAR O. KINSMAN, M.D., *Secretary*, Cambridge, Mass.

INDIANA.

The next meeting of the Indiana State Board of Dental Examiners will be held in the State House, Indianapolis, November 10th to 15th. All applicants for registration in the State will be examined at this time. No other meeting will be held until June, 1914. For further information apply to the Secretary, F. R. HENSHAW, 508 K. of P. Building, Indianapolis.

MICHIGAN.

The next regular meeting of the Michigan State Board of Dental Examiners will be held at the Dental College, Ann Arbor, commencing Monday, November 10th, and continuing through the 15th. For application blank and full particulars, address F. E. SHARP, Port Huron, Mich., *Secretary*.

THE OHIO STATE DENTAL SOCIETY

The meeting of the Ohio State Dental Society will be held at Toledo, December 2, 3 and 4, 1913. This meeting will be an innovation. It will mark the beginning of a new epoch in State dental meetings. Nowhere at any time has there been planned a meeting like this. Fields heretofore untouched will be opened at this meeting. Men of national and international reputation will be in attendance and present subjects along the lines of scientific research, systemic treatment and preventive measures of incalculable value to the dental profession.

The clinics will also mark a new epoch—only fifteen clinicians—men who have attained the highest proficiency in their respective fields, will be here. The unit system will be used, and every dentist in attendance will HEAR and SEE all that each clinician says and does.

Toledo is on the main line between New York and Chicago, and has the finest restaurants, hotels, theaters, between these two great centers. Toledo is known as the Golden Rule City. Our police carry no clubs—they apply the golden rule. Come and see it in operation. No dentist need stay away on account of the police.

The Commerce Club, occupying the two upper top floors of the 16-story Nicholas Building has graciously extended the privileges of the club to visiting dentists.

Exhibitors desiring to secure space and all others interested should address

COMMITTEE LOCAL ARRANGEMENTS

718 Spitzer Building.

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JOHN R. SHEPPARD, Sec'y & Treas.

Sworn to and subscribed before me this
16th day of September, 1913.

(Seal)

ADA M. RILEY,
Commissioner of Deeds No. 8.

(My commission expires July 16, 1915.)

To fight well and win is sweet. To fight fair and lose and then fight fair again is noble.—*The Founder of Business.*